

2006 CATALOG



www.GeneDetect.com



GeneDetect.com

www.GeneDetect.com

For general enquiries email Info@GeneDetect.com

For sales enquiries email Sales@GeneDetect.com

For technical assistance email Scientific@GeneDetect.com

2006 CATALOG

080613

Fully searchable online Product Database with product descriptions

Secure online ordering and eQuotes in any currency

Deliveries worldwide

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Worldwide & Asia-Pacific:

209 Taylor Street, Suite 4
Blockhouse Bay

Auckland 0600, New Zealand

Phone/Fax: +64-9-353-1320

PRODUCT CATEGORIES (continued)

GeneDetect® & GreenStar*™ Oligonucleotide Gene Probes (continued)

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GENERAL INFORMATION

Contact Us

North America:

Our North American headquarters are located in Bradenton, Florida. Please feel free to contact us below.

GeneDetect.com

1901 60th Place, Suite L8299
Bradenton, FL
USA 34203

Ph: 1-305-723-0628 (Automated Call System)

Fax: 1-305-723-0628

Worldwide and Asia-Pacific:

Our Worldwide and Asia-Pacific headquarters are located in Auckland, New Zealand. Please feel free to contact us below.

GeneDetect.com Ltd

209 Taylor Street, Suite 4
Blockhouse Bay
Auckland 0600
New Zealand

Ph: +64-9-353-1320 (Automated Call System)

Fax: +64-9-353-1320

European Union:

The company has plans to open a new UK-based European subsidiary in 2006. In the meantime, please contact us at our Worldwide headquarters in Auckland, New Zealand (above).

Local distributors:

We have distributors in Japan, China, Singapore and Austria. Please see the *Distributors* Section of this Catalog (below) for their contact details.

Email:

All email enquiries will be answered promptly.

General enquiries Info@GeneDetect.com

Sales enquires Sales@GeneDetect.com

Scientific assistance Scientific@GeneDetect.com



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GENERAL INFORMATION



About Us

GeneDetect.com is a privately owned bioscience company with offices located in North America (Bradenton, Florida) and the Asia-Pacific region (Auckland, New Zealand). Our contact details are above.

We develop, manufacture and market more than 4,000 products for the life sciences market. Our Products are principally research tools in reagent and kit form which the company sells direct to end users or through established distribution channels.

The Company focuses its business on the principal segment of reagents and kits which can be used to detect, measure, characterize, inhibit or stimulate gene expression. We are currently developing new products and actively in-licensing new technologies that will allow for this product base to expand.

The company is globally focused and uses cutting edge e-commerce functionality to allow scientists worldwide to order our products online. Real-time pricing in multiple currencies, multi-currency billing, real-time credit card processing and a specialized ability to ship perishable goods to any location on the planet within 96 hours ensures a global customer base.

The company has plans to open a new UK-based European subsidiary in 2006.



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GENERAL INFORMATION

Ordering Information

Distributors

For customers in **Austria, China, Japan** and **Singapore** please contact our Distributors for product & pricing information and to place an order. For all other worldwide orders, see the *How to Make a Purchase* or *How to Get a Quote* Sections of this Catalog (below).

Austria

MedPro GesmbH

A-1180 Vienna
Gersthofer Strabe 9
Austria

<http://www.medpro-wien.at>

Tel: 01-479-15-69

Fax: 01-479-83-52



Austria

China

Jingmei Biotech Co., Ltd

024 Kaiyuan Plaza
7001 Beihuan DaDao
Shenzhen, China 518034

www.jingmei.com

Tel: 0755-3546191; 800-830-5060

Fax: 0755-3546196



China

Japan

Cosmo Bio Co., Ltd

Toyo-Ekimae Building 2-2-20
Toyo Koto-ku
Tokyo 135-0016, Japan

www.cosmobio.co.jp

Tel: 03-5632-9610

Fax: 03-5632-9619



Japan

Singapore

BioFrontier Technology

Blk 20, Ayer Rajah Crescent
#07-15, Technopreneur Centre
Singapore 139964

Tel: 6464-1361

Fax: 6464-1363

Email: biofrontier@pacific.net.sg



Singapore



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GENERAL INFORMATION

All Other Worldwide Orders

Use this **Catalog** and its companion **Price List**, or use our online **Product Database** (www.genedetect.com/products.htm) for product descriptions and pricing information in any currency. Check our website periodically for the most up-to-date version of our Catalog, Price List, and Product Database. Our Catalog &/or Price List can be downloaded from our website or we can email it to you (send your request to Sales@GeneDetect.com).

Check our website regularly (www.genedetect.com/news.htm) for the latest **Promotions, Sales, and Discounts** on offer.

Prices on our Price List are by default shown in US dollars and do not include shipping, handling & customs charges. Please use our website to calculate shipping, handling & customs charges for your order or contact us directly at Sales@GeneDetect.com. To receive real-time conversion of product prices from USD to your preferred (home) currency, use our website and select your currency from the drop-down list available at the top, left-hand corner of all product webpages. We can accept payment for products in your preferred currency. GST will apply to purchases within New Zealand. To receive an online **quote**, see the *How to Get a Quote* Section of this Catalog (below). Prices are subject to change without notice.

Payment options include purchase orders, credit card payments, electronic wire transfers, & company checks, cashiers checks or international money orders. Purchase orders can be made in local currencies converted from the US price (using our online eQuote system (see below) or by emailing a quote request to Sales@GeneDetect.com). For purchase orders, credit terms are strictly net 30 days FOB destination. We reserve the right to charge interest on overdue accounts. Credit cards accepted are: Visa, Mastercard, American Express, Diners Club, Switch, Delta, Solo, EuroCard, & JCB. Credit card payments may be made in a variety of currencies: US Dollars, Canadian Dollars, Japanese Yen, British Pounds or Euros.



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GENERAL INFORMATION

How To Make A Purchase

Please place orders via Phone, Fax, Email, or by using our Secure Online Ordering System (easy to follow instructions below).

Phone: North America: 1-305-723-0628 (Automated Call System, leave your order on Voicemail)
Worldwide & Asia-Pacific: +64-9-353-1320 (Automated Call System, leave your order on Voicemail)

Fax: North America: 1-305-723-0628
Worldwide & Asia-Pacific: +64-9-353-1320

Email: Sales@GeneDetect.com

Online: www.GeneDetect.com

How To Make A Purchase Using Our Secure Online Ordering System

These instructions are also available online at www.genedetect.com/fagpurchasing.htm.

By using products purchased from GeneDetect.com you accept our Terms and Conditions, which are available in full in the *Terms and Conditions* Section of this Catalog (below) and online at www.genedetect.com/terms.htm.

If you have any privacy or security concerns about shopping online with us, please read the *Privacy and Security Policy* Section of this Catalog (below) or online at www.genedetect.com/privacy.htm.



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GENERAL INFORMATION

It's a simple **FOUR STEP** process (further details below).

1. Browse and select products using our "Shopping Basket" system. You must have Javascript and Cookies enabled on your browser. Prices are shown in USD (US dollars) by default. You can receive real-time conversion of product prices from USD to your preferred (home) currency by selecting your currency from the drop-down list available at the top, left-hand corner of all product webpages. We can accept payment for products in your preferred currency.

2. Go to Checkout. If you are a first time customer, on checkout, you will be given the option of (a) setting up an account or (b) checking out without an account. If you think you might purchase products from us again or want to take advantage of some of the more advanced features available on this site (for example saving eQuotes (www.genedetect.com/quotes.htm) to your account) you should set up an account. Otherwise select checkout without an account. Enter your details and preferred shipping option. At this point you are able to redeem a Discount Coupon if you have one. Enter the "coupon code" into the space provided and click "Redeem Coupon". The discount associated with the coupon will be applied to your purchase.

3. Choose Payment Method. There are 3 options:

Option #1: Select to pay directly by Credit Card or Purchase Order (PO) number.

Option #2: Choose the option of having your Purchasing Department make your order.

With options #1 and #2 you will receive a printable invoice containing your Order # at the end of your session.

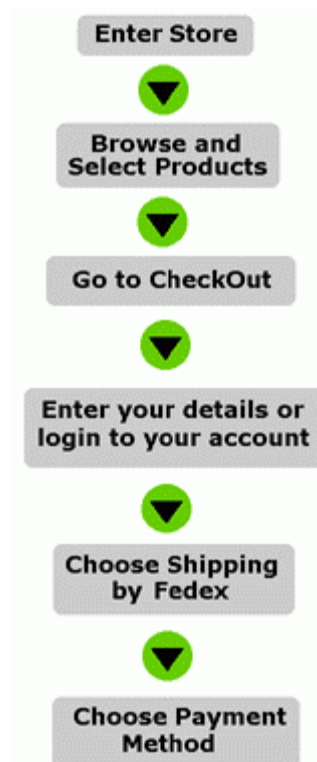
Option #3: Save your shopping session as an eQuote. You must have an account set up for Option #3. eQuotes can also be printed out but you will not receive an order number.

4. Your goods are shipped. On the day your goods are sent we email you a tracking number so you can track your delivery online.

Please read below for further detailed instructions on the 4-step GeneDetect.com purchase process

1. Browse and Select Products

You are able to Search our Product range or Browse our Products by Category by clicking on the "Products" button on the Navigation Bar and then following the relevant link. We employ a standard "Shopping Basket System" that allows you to select products and add them to your Shopping Basket as



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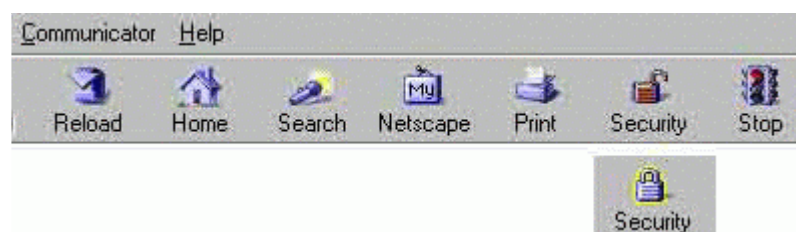
you shop. You can check the contents or remove items from your Shopping Basket at any time while you are shopping by clicking on the "Basket" button on the Navigation Bar. The contents of your Shopping Basket and your shopping session will expire if your session is left unattended for longer than 60 minutes. When you examine your shopping basket you will see the items and quantities of product you have selected and the purchase price in US dollars (default) or your preferred currency if you have selected it from the drop- down list of currencies available at the top, left-hand corner of all product webpages. Shipping, and if applicable, tax charges are added to your total as you checkout. Shipping is by Federal Express (FedEx). The price of shipping your products to your country is automatically calculated and added to the cost of your purchase.

2. Setting up a Customer Account

If you think you may make another purchase from us in the future or you wish to make use of some of the more advanced features available on this website you should set up your own personal customer account. This will take you approximately 5 minutes and requires no contact with our staff.

One benefit of setting up an account is that each time you purchase products from us you only have to login to your account before checkout instead of having to re-enter all of your details. Another benefit is that with your own customer account you will be able to generate and save eQuotes. eQuotes are valid online quotes. With a customer account you are able to save your "baskets" as "eQuotes". Therefore you can browse the site selecting products and when you go to checkout you can decide to save the basket (with its calculated total cost including shipping and tax if applicable) as a valid quote from GeneDetect.com to you. This eQuote can be accessed at any time in the future by logging into your account and can be printed out and used to obtain purchasing approval or a Purchase Order number from your institution. When you have obtained approval or your purchase order number, you can login to your account, select the eQuote and proceed to checkout and payment. Note: eQuotes are only valid for 3 months from the date they are made. To obtain an eQuote, go to www.genedetect.com/quotes.htm.

To set up (or to later modify) your "Customer Account" click on the "Accts" button on the Navigation Bar. Note, to ensure the security of the information you submit when you set up your "Customer Account" we use secure socket layer (SSL) encryption and store your account details on our secure server. In Netscape Navigator versions 4.0 and higher, the padlock on the menu bar will change from open to closed. In earlier versions of Netscape, the key in the lower left hand corner of the browser window will change from being "broken" to being solid.



In Internet Explorer 3.x, 4.x, 5.x and 6.x SSL is indicated by displaying a padlock in the lower-right corner of the browser window.



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Now please select "Create New Account". Choose a password (Case sensitive!) and an email address. We will use this email as your primary contact and will email your password to this email account should you ever forget it. Now enter all of your details into the "Ship to" fields in the Customer Account form and press SAVE at the bottom right of the screen. Note that FedEx DOES NOT DELIVER TO PO BOXES. You have now set up your "Customer Account". All information can be modified and updated at a later date by logging into your account.

3. Payment Options

Multi-currency pricing and payment

Understanding the global nature of our customers, we are happy to announce that full multi-currency functionality has been incorporated into our website. By selecting your preferred currency from the drop-down list available at the top, left-hand corner of all product webpages you will receive real-time conversion of product prices from USD (default) to your selected currency. This will allow you to generate eQuotes or make orders fully in your own preferred currency. We are able to accept purchase orders and send invoices in any currency. If you decide to make payment by credit card you will need to choose to be billed in either US dollars, Canadian dollars, Euros, Pounds Sterling or Japanese Yen.

Multiple payment options

By offering multiple payment options we hope we can offer you a convenient way to make payment. If you think you need to further discuss our payment methods please contact us at Sales@GeneDetect.com. During the checkout process you are asked to choose a payment method.



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The options are:

OPTION #1: Select to pay directly by Credit Card or Purchase Order (PO) number. You can choose to use your credit card/procurement card online or to fax through your details (listed below). Your order will be sent almost immediately.

Use your Credit Card/Procurement Card online

If you select to pay online by credit card you can choose between one of five currencies to be billed in. At this time the currency options available are US dollars (default), Canadian dollars, European Union Euros, British Pounds or Japanese Yen. The conversion from US dollars to the currency you select will occur in real time and the amount you see at check out will be the amount billed to your credit card.

Payment can be made using any major credit or procurement card including MasterCard, Visa, American Express, Diners Club, Switch, Delta, Solo, EuroCard and JCB.

Real time processing will occur via the WorldPay Direct Payment Gateway www.WorldPay.com. Your payment is held in escrow by WorldPay for 5 weeks from the date of purchase before the funds are transferred to our account. With WorldPay you are able to easily initiate a charge back in the event of a disputed transaction. Further when your initial purchase is made from GeneDetect.com via the WorldPay Payment gateway, WorldPay will automatically generate a username and password that will allow you to access their Customer Management System (CMS). Access to the CMS is online and allows you to view all purchases made on your credit card account in real time and shows whether transactions are being processed successfully.

Both WorldPay and GeneDetect.com use 128-bit SSL encryption and all transactions are signed using Thawte digital certificates to provide you a highly secure environment in which to use your credit card. The WorldPay Payment system is the choice for many merchants and household names including Virgin, The Financial Times, Oxfam, PSINet, Bank One and Vauxhall.

Fax your Credit Card/Procurement Card details

You can also choose to Fax through your credit card details to us. In this case please choose "Payment by Credit Card (details to be faxed)". Continue through the checkout process to receive your invoice and order number and then fax your invoice with its order number and the following details to:

North America: Fax 1-305-723-0628
Worldwide and Asia-Pacific: Fax +64-9-353-1320

Details required:

#1 Card number/type of card

Option 1.

Payment by: Credit Card or PO number



Enter CC details or PO Number



Receive Order # and receipt



Order Shipped



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GENERAL INFORMATION

#2 Security code

The card security code is a unique three or four-digit number printed on your debit/credit card. This number is not embossed on the card and hence not printed on receipts - making it difficult for anyone other than the genuine cardholder, to know it. Some card issuers refer to this number as the 'Card Security Code' others as the 'personal security code' and others as 'Card Verification Value'. Some cards, many UK-issued cards for example, have a three-digit number printed at the top of the signature strip on the reverse of the card. Others, American Express cards for example, have a four-digit number printed on the front of the card, above the account number.

#3 Valid from (month/year - optional)

#4 Expiration Date (month/year)

#5 Issue Number (Switch/Solo only)

#6 Cardholder's Name

#7 Billing Address

Please enter the address to which your card statement is currently sent. It is essential that you keep your Card Issuer informed of any changes of address. Your billing address must match the address held by your Card Issuer exactly.

Supply a Purchase Order number



You are also able to make direct payment if you can supply a Purchase Order number (PO) during checkout. This will apply in situations where laboratories have their own purchase order book. Purchase order numbers are usually accepted from educational and government institutions and select for-profit companies although credit approval may be required before your order is shipped. If you would like to set up a blanket PO number with us please contact us at Sales@GeneDetect.com.



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GENERAL INFORMATION

OPTION #2: Choose the option of having your Purchasing Department make your order.

We realize that a large proportion of our institutional customers are required to have their orders placed by a centralized purchasing department or by institutional buyers. If this is the case then you should choose purchase Option #2, Payment by Purchasing Department.

Follow all the steps to receive your invoice and order number. You can print this out and forward it to your Purchasing Department. We will also immediately send you an email containing a copy of your invoice and order number. This can also be forwarded to your Purchasing Department, deleted, or kept for your records. While we will have received your order, we will wait for your Purchasing Department or institutional buyer to authorize it by Phone, Fax or email before we send your products.

You should give your Purchasing Department the following information.

Information for Purchasing Departments

Please **place orders** via Phone, Fax (preferred), Email, or by using our Secure Online Ordering System (easy to follow instructions above):

Phone: North America: 1-305-723-0628 (Automated Call System, leave your order on Voicemail)
Worldwide & Asia-Pacific: +64-9-353-1320 (Automated Call System, leave your order on Voicemail)

Fax: North America: 1-305-723-0628
Worldwide & Asia-Pacific: +64-9-353-1320

Email: Sales@GeneDetect.com

Online: www.GeneDetect.com

Terms are strictly NET 30, FOB destination. Upon receiving our invoice we suggest the following payment methods.

1. Payment by Credit or Procurement Card

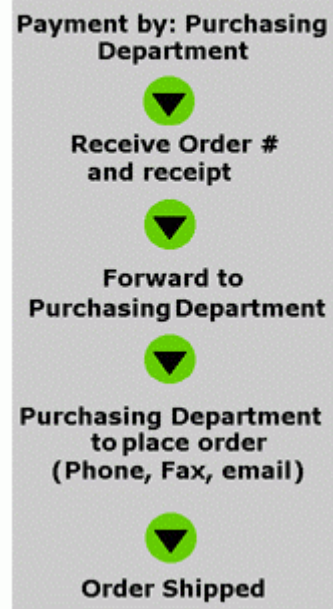
Fax the following details:

#1 Card number/type of card

#2 Security code

The card security code is a unique three or four-digit number printed on your debit/credit card. This number is not embossed on the card and hence not printed on receipts - making it difficult for anyone

Option 2.



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other than the genuine cardholder, to know it. Some card issuers refer to this number as the 'Card Security Code' others as the 'personal security code' and others as 'Card Verification Value'. Some cards, many UK-issued cards for example, have a three-digit number printed at the top of the signature strip on the reverse of the card. Others, American Express cards for example, have a four-digit number printed on the front of the card, above the account number.

#3 Valid from (month/year - optional)

#4 Expiration Date (month/year)

#5 Issue Number (Switch/Solo only)

#6 Cardholder's Name

#7 Billing Address

Please enter the address to which your card statement is currently sent. It is essential that you keep your Card Issuer informed of any changes of address. Your billing address must match the address held by your Card Issuer exactly.

2. Payments by Electronic Wire Transfer

Payment can be made by direct international wire transfer of funds to our Worldwide and Asia-Pacific bank account. You must add the equivalent of USD\$20.00 to orders to cover wire transfer bank fees.

Please contact us for bank account details.

Please instruct your bank to make reference to your order number in the transfer.

3. Payment by Company check, Bank or Cashiers check, or International money order

We will accept payment in any currency via company check, bank or cashiers checks, or international money order made out to GENEDETECT.COM LIMITED. You should mail checks with the order number clearly written on the stub/back of the check to:

North America:

GeneDetect.com
1901 60th Place, Suite L8299
Bradenton, FL
USA 34203

Worldwide and Asia-Pacific:

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OPTION # 3: Save your shopping session as an eQuote. You must have an account set up for option #3. eQuotes can also be printed out. eQuotes are valid online quotes. With a customer account you are able to save your "baskets" as "eQuotes". Therefore you can browse the site selecting products and when you go to checkout you can decide to save the basket (with its calculated purchase price including shipping and tax if applicable) as a valid quote from GeneDetect.com to you. This eQuote can be accessed at any time in the future by logging into your account and can be printed out and used to obtain purchasing approval or a Purchase Order number from your institution. When you have obtained approval or your purchase order number, you can login to your account, select the eQuote and proceed to checkout and use one of the earlier payment options (#1 or #2) to make payment. Note: eQuotes are valid for 3 months from the date they are made.

4. Shipping of your Products

All orders are shipped using Federal Express (FedEx International Priority). Once your order is sent we will email you a tracking number. You are able to track your order online by linking to our tracking webpage (www.genedetect.com/tracking.htm). The cost for shipping, handling and customs fees is added to your order on checkout.

Shipping, handling and customs charges for international orders shipped by FedEx vary according to the country that the goods are delivered to. Goods are delivered to most parts of the World within 1-3 days of the ship date.

Redeeming Discount Coupons

If you have received a Discount Coupon you are able to redeem it during the checkout process to apply the discount to your purchase. You are able to redeem the Discount Coupon at the same time you select your preferred shipping and payment method. Enter the "coupon code" into the space provided and click "Redeem Coupon". The discount associated with the coupon will be applied to your purchase. Discount Coupons will not work if the date of expiry has passed.

Option 3.

Payment by: Save as quote



Save as an eQUOTE



Use to compare prices or get purchasing approval



Login to your account at a later time



Select Quote. CheckOut quote.



Choose Payment Method



Option 1.

or

Option 2.



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email: Sales@GeneDetect.com

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Worldwide & Asia-Pacific:

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GENERAL INFORMATION

How to Get a Quote

Our website allows you to get an immediate eQuote from us. An eQuote is an online quote. Because of eQuotes there is now no need for you to contact a sales representative to receive a valid quote. Just do it yourself...online!

eQuotes can be printed out. Send one to your purchasing office or keep one for your records for comparing prices online. eQuotes are valid for 3 months from the date they are made.

For an immediate quote, use our online eQuote system at www.genedetect.com/quotes.htm.

Alternatively, email us at Sales@GeneDetect.com or fax us at either (1) North America: 1-305-723-0628 or (2) Worldwide & Asia-Pacific: +64-9-353-1320.

How to Get an eQuote

Browse our site adding products to your basket as you go. When you have finished adding products, go to checkout. Don't worry, there is no commitment to buy!

At this point you will be asked to set up an account (or login to your account if you already have one). You will need to have an online account with us to receive an eQuote. An online account costs nothing to setup and will take about 5 minutes of your time. Click, "Create New Account".

Fill in the required information. This information can always be updated later. Click "Continue" and choose your shipping option. Your eQuote will calculate the correct shipping, handling and customs costs associated with your order using the "ship-to" address you provided when you set up your account.

IMPORTANT. For the "PAY WITH" option choose "Save as Quote", and then click "Continue". Now you are given the option of naming your eQuote. Name your quote, and click "Continue".

This webpage is your valid eQuote. Print it out and keep it for your records. We will also immediately send you an email containing a copy of your eQuote. This can be forwarded to your purchasing department or deleted.

All prices are by default in US dollars unless you have selected another preferred currency from the drop-down list available at the top, left-hand corner of all product webpages. In this case you will receive real-time conversion of product prices from USD to your selected currency. This allows you to generate the eQuote in your own preferred currency.

The best thing about eQuotes is that they are linked to your account. If you lose the hard copy of your eQuote, simply login to your account and bring up the specific quote by clicking on its name and print it out again. See our Purchasing FAQ Webpage at genedetect.com/faqpurchasing.htm for further information.



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GENERAL INFORMATION

Frequently Asked Questions (FAQs)

For the most current information, visit our website FAQ Webpage at www.genedetect.com/faq.htm. If you have a question that is not answered by this FAQ, submit your question to us using our online FAQ form at the end of the FAQ Webpage, or via email to Info@GeneDetect.com.

FAQ Questions (Answers follow below)

1. How do I make a purchase?
2. What is your Privacy and Security Policy?
3. How is my order shipped. Can I track my order?
4. What is your warranty?
5. What are your terms and conditions?
6. How do I convert product prices into my own currency?
7. What happens if my goods are defective or I never receive my order?
8. Do you have a catalog that can be sent to me?
9. How may I contact you?
10. Upon placing an order how long does it take to receive my products?
11. I work in a commercially sensitive IP environment. How is the confidentiality of my relationship maintained?
12. In what currency are the prices on the site?
13. Do you accept international orders?
14. My laboratory has a credit card but institutional policy prevents me from sending credit card details over the internet. What should I do?
15. What scientific and technical support do you offer with your products?
16. What do I get when I order an oligonucleotide probe pack?
17. How can I get free products?
18. How do I redeem my Discount Coupon?
19. Why must I have cookies enabled on my browser when using your website?
20. Why am I having problems using your website?
21. Why am I having problems accessing your site with Netscape 6.0 or 6.1?
22. What are the benefits of setting up a Customer Account?
23. How can I get a quote?
24. Where are your laboratory protocols?
25. I have a reagent I think could be sold. Can you help me sell it?
26. What promotions do you have running at the moment?
27. Can I fax you my order?
28. Can I make an order online with a credit card?
29. How do I know my card number will not be stolen by hackers? Is it really secure?
30. I have some questions about your AAV (rAVE™) products. Do you have a rAVE™ FAQ too?
31. I am based in XXX country. Can you still ship to me in a timely fashion.



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GENERAL INFORMATION

FAQ Answers

1. How do I make a purchase?

Easy step-by-step instructions on how to place an order may be found in the *How to Make a Purchase* Section of this Catalog (within the *Ordering Information* Section), or by visiting our online Purchasing FAQ at www.genedetect.com/fagpurchasing.htm.

2. What is your Privacy and Security Policy?

See the *Privacy and Security Policy* Section of this Catalog (below), or visit our online webpage at www.genedetect.com/privacy.htm.

3. How is my order shipped. Can I track my order?

For non-perishable items, all orders are shipped at room temperature using Federal Express (Fedex International Priority). Once your order is sent we will email you a tracking number. You are able to track your order online by linking to our tracking webpage (www.genedetect.com/tracking.htm). The cost for shipping, handling and country-specific customs fees is added to your order on checkout. Shipping, handling and customs charges vary according to delivery country. Goods are delivered to most parts of the World within 1-3 days.

Perishable goods are shipped using other methods. See www.genedetect.com/ravefaq.htm#shipping.

4. What is your warranty?

Our Warranty

GeneDetect.com Ltd. warrants our products as free of defects in design, materials, and workmanship. THE FOREGOING WARRANTY IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OF EVERY KIND AND NATURE, INCLUDING THE WARRANTIES OF MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In the event of a breach of warranty, our sole obligation shall be to replace any product purchased that does not conform to the foregoing warranty or at our discretion a credit or refund. Without limiting the generality of the foregoing, GeneDetect.com Ltd. shall not be liable in tort, contract or otherwise for any incidental, consequential or special damages. All products manufactured and/or distributed by GeneDetect.com Ltd. should be used in accordance with the products' labeled intended use. ALL PRODUCTS ARE FOR RESEARCH USE ONLY. THE USE OF OUR PRODUCTS IN CERTAIN SCIENTIFIC TECHNIQUES MAY REQUIRE THAT YOU, THE END USER, OBTAIN A LICENSE FROM A THIRD PARTY. WE WILL NOT BE HELD RESPONSIBLE IN ANY WAY FOR YOUR UNAUTHORIZED USE OF OUR PRODUCTS.

5. What are your terms and conditions?

See the *Terms and Conditions* Section of this Catalog (below), or visit our online webpage at www.genedetect.com/terms.htm.

6. How do I convert product prices into my own currency?

Understanding the global nature of our customers, our website incorporates full multi-currency functionality. By selecting your preferred currency from the drop-down list available at the top, left-hand corner of all product webpages you will receive real-time conversion of product prices from USD (the default currency) to your selected currency. This will allow you to generate online eQuotes or make orders fully in your own preferred currency. We invoice in multiple currencies to complement this system. At the moment, settlement by credit card is currently limited to US Dollars, Canadian Dollars, Euros, Pounds Sterling or Japanese Yen.



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GENERAL INFORMATION

7. What happens if my goods are defective or I never receive my order?

Our policy on Returns or Missing or Damaged Merchandise

Upon your receipt of goods shipped hereunder, you shall inspect the goods and notify our Technical Services Department at Scientific@GeneDetect.com or Customer Services Department at Sales@GeneDetect.com of any claims for shortages, defects or damages. We do everything in our power to make certain you receive your order promptly and in good condition. Nevertheless, sometimes problems can occur. Please check your order as soon as it arrives. If you fail to so notify us within 14 days after you receive the goods, the goods shall conclusively be deemed to conform to these Conditions and to have been irrevocably accepted by you. Authorization for all product returns must be approved by our Technical Services or Customer Services Department and a return authorization number given to you prior to the return of goods. Not all items will be authorized for return, due to temperature and packing requirements. Items authorized for return must arrive at our facilities in a state satisfactory for resale to be eligible for product credit. A restocking charge of 25% or USD\$50 (whichever is greater) shall be charged on returns that are not the result of any error or fault of ours. Shipping charges will not be credited. Goods may not be returned for credit after 14 days after your receipt of the goods.

Credits and Refunds

At our discretion, we may issue a product credit or refund for the product value and shipping charges. No product credit shall be available for use if a past due balance is outstanding on the account.

8. Do you have a catalog that can be sent to me?

Yes. We can email our Catalog to you (pdf file) if you like or you can simply download our most recent Catalog from the bottom of our online Products Webpage at www.genedetect.com/products.htm.

9. How may I contact you?

By phone, fax or email or by internet chat at certain times. See the *Contact Us* Section at the front of this Catalog or online at www.genedetect.com/contact.htm.

10. Upon placing an order how long does it take to receive my products?

Your order begins being processed almost immediately after you receive your order number and we aim to have your products to you within 7 working days of you placing your order (Gene Probes, Decoys, RNA Templates, rAVE™ Reporter Gene Vectors). Custom rAVE™ Vectors will be delivered within 3-4 weeks.

11. I work in a commercially sensitive IP environment. How is the confidentiality of my relationship maintained?

We maintain our database of customer purchases in a highly secure environment. We will never disclose this information to third parties. All employees have signed Confidentiality Disclosure agreements (CDA). We are happy to sign your companies CDA on request before working with you.

12. In what currency are the prices on the site?

Prices can be shown in ALL currencies. Prices are originally shown in US dollars (the default currency) unless you select your preferred currency from the drop-down list available at the top, left-hand corner of all product webpages. Once you have selected your currency, prices will be converted in real-time to your chosen currency. We are able to invoice you in your own currency.

13. Do you accept international orders?

Yes. Worldwide orders are accepted although customers in China, Japan, Singapore and Austria should contact their Local Distributors to make an order. Distributor contact details can be found in the *Distributors* Section in the front of this Catalog or online at www.genedetect.com/distributors.htm. We can ship to any country worldwide using our network of customs agents and brokers.



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GENERAL INFORMATION

14. My laboratory has a credit card but institutional policy prevents me from sending credit card details over the internet. What should I do?

Increasingly laboratories both in a commercial and academic/government environment are using credit cards for small purchases. While we use state of the art security features to protect your financial information* we understand that we cannot influence your institutional policy. In this case we suggest you Fax through your credit card details. Our Fax number is 1-305-723-0628 (US orders) or +64-9-353-1320 (Worldwide and Asia-Pacific Orders).

Details required:

#1 Card number/type of card

#2 Security code (see below for explanation)

The card security code is a unique three or four-digit number printed on your debit/credit card. This number is not embossed on the card and hence not printed on receipts - making it difficult for anyone other than the genuine cardholder, to know it. Some card issuers refer to this number as the 'Card Security Code' others as the 'personal security code' and others as 'Card Verification Value'. Some cards, many UK-issued cards for example, have a three-digit number printed at the top of the signature strip on the reverse of the card. Others, American Express cards for example, have a four-digit number printed on the front of the card, above the account number.

#3 Valid from (month/year - optional)

#4 Expiration Date (month/year)

#5 Issue Number (Switch/Solo only)

#6 Cardholder's Name

#7 Billing Address

Please enter the address to which your card statement is currently sent. It is essential that you keep your Card Issuer informed of any changes of address. Your billing address must match the address held by your Card Issuer exactly.

*Our full Privacy & Security Policies can be found in the *Privacy & Security Policy* Section in this Catalog or online at www.genedetect.com/privacy.htm#SSL.

15. What scientific and technical support do you offer with your products?

As experts in the field for the products we offer for sale we are able to offer full support for all of your scientific and technical questions. We guarantee a reply to any question WITHIN 24 hours at the latest. We strongly encourage you to email your scientific and technical questions to us at Scientific@GeneDetect.com. In many cases we can modify protocols or suggest alternative reagent suppliers to ensure your success with your experiments. Please download optimized laboratory protocols from our online Protocols Webpage at www.genedetect.com/protocols.htm.



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GENERAL INFORMATION

16. What do I get when I order an oligonucleotide probe pack?

Our GeneDetect® & GreenStar*™ Oligonucleotide Probe Packs contain three single stranded oligonucleotide probes in sufficient quantities that allow for thousands of hybridization experiments to be performed. The quantities of probes supplied allows for the addition of competition studies with labeled and excess unlabeled probes into your experiments to distinguish between specific versus non-specific binding. The probe pack contains:

1. an Antisense (complementary) probe to the gene of interest,
2. its Sense (control) companion and
3. a Poly d(T) probe that allows you to confirm the quality of the mRNA in your sample.

You will also receive full probe sequence information which is included in the Product Specification Sheet, copies of up to three journal articles that have characterized and used the probe, GeneDetect.com protocol sheets and relevant GenBank FASTA/BLAST printouts. You are also eligible for full technical support from our resident expert scientists to ensure successful use of the probe with your experiments.

17. How can I get free products?

We are interested in hearing of any publications that cite our products. By sending us your published article or alternatively proof of acceptance for publication of your manuscript we will credit your account with US\$100 per article. The credit will last for two years from the date of credit. This amount is to be used solely to fund further purchases from this company. Funds will NOT be credited back to your company or institution under any circumstances. To qualify your manuscript must include our website address immediately after the description of our product. For example, "the Smad-2 probe was purchased from <http://www.GeneDetect.com>".

18. How do I redeem my Discount Coupon?

If you have received a Discount Coupon you are able to redeem it during the checkout process to apply the discount to your purchase. You are able to redeem the Discount Coupon at the same time you select your preferred shipping and payment method. Enter the "coupon code" into the space provided and click "Redeem Coupon". The discount associated with the coupon will be applied to your purchase. Discount Coupons will not work if the date of expiry has passed.

19. Why must I have cookies enabled on my browser when using your website?

Cookies are required to allow the "shopping basket" software to work. Almost all sophisticated shopping basket software on e-commerce sites requires the use of a cookie. Basically the cookie we deposit on your computer temporarily stores the contents of your shopping basket while you browse and shop with us. If you use our site without cookies you may find in certain situations that the "contents of your basket" are lost half way through your shopping experience. Our cookies are not stored permanently on your hard drive, rather they are removed when your shopping session is left unattended for 60 minutes or when your browser closes. Visit www.cookiecentral.com for a more in-depth explanation of cookies.

20. Why am I having problems using your website?

While there may be many reasons, the most likely is that you are either using an older browser or a newer browser with Javascript and/or cookies turned off. Please make sure you have both Javascript and Cookies turned on. If you have continuing problems please contact us at Info@GeneDetect.com for assistance.

21. Why am I having problems accessing your site with Netscape 6.0 or 6.1?

Netscape 6.0 and 6.1 have known compatibility problems with many websites. Please upgrade your browser to Netscape version 6.2 or higher.



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GENERAL INFORMATION

22. What are the benefits of setting up a Customer Account?

One benefit of setting up an online account is that each time you purchase products from us you only have to login to your account before checkout instead of having to re-enter all of your shipping and billing details every time. Another benefit is that with your own customer account you will be able to utilize the functionality of our eQuote system (www.genedetect.com/quotes.htm) which allows you to generate and save quotes. That is, you are able to save your "baskets" as "Quotes". Therefore you can browse the site selecting products and when you go to checkout you can decide to save the basket (with its calculated total price including shipping and tax if applicable) as a quote from us to you. This quote can be accessed at any time by logging into your account and can be printed out and used to obtain a Purchase Order number from your institution. When you have obtained your purchase order, you can login to your account, select the quote and proceed to checkout and payment. Note: Quotes are only valid for 3 months from the date they are made.

Setting up an account takes about 5 minutes and you do not need to contact our staff to do it. All of your account information can be modified and updated at a later date by logging into your account.

23. How can I get a quote?

You can get a quote simply by emailing Sales@GeneDetect.com and asking for one. Our full contact details are in the *Ordering Information* Section of this Catalog and can also be found online at www.genedetect.com/contact.htm. The quote will usually be sent the same day, or at worst, by 9am the day following your request.

Another option that is available to you and allows you to get an immediate quote 24 hours a day, 7 days a week is our online eQuote system. Go to www.genedetect.com/quotes.htm for full details on preparing your own eQuote in USD or your own currency. Instructions can also be found in the *How to Get a Quote* Section of this Catalog.

24. Where are your laboratory protocols?

Please go to www.genedetect.com/protocols.htm or www.genedetect.com/raveprotocols.htm.

25. I have a reagent I think could be sold. Can you help me sell it?

Certainly. If your product is suitable we would be glad to enter discussions on how best to market and distribute it for you. Please go www.genedetect.com/commercialize.htm for further details.

26. What promotions do you have running at the moment?

Please visit our online Promotions Webpage at www.genedetect.com/promo.htm for an update on the latest promotions we have running.

27. Can I fax you my order?

Of course. To place your order simply fax a purchase order to 1-305-723-0628 (US orders) or +64-9-353-1320 (Worldwide and Asia Pacific Orders) or fax your credit card details (details required are listed above in Question 14 or may be viewed online at www.genedetect.com/faq.htm#Creditcard). Please ensure we have your FULL delivery address and please include a contact phone number as per FedEx requirements.

28. Can I make an order online with a credit card?

Definitely. We accept all major credit cards and all major institutional procurement cards including MasterCard, Visa, American Express, Diners Club, Switch, Delta, Solo, EuroCard and JCB. Using a credit card online is probably one of the simplest ways to make your purchase. Using this website and your credit card you can place your order at any time of the night or day from any country in the world. At the moment, settlement by credit card is currently limited to US dollars, Canadian dollars, Euros, Pounds Sterling or Japanese Yen.



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29. How do I know my card number will not be stolen by hackers? Is it really secure?

Yes it is really secure when you order with us.

When you use your credit card number online you should always check that the website is secure (the page address should begin with https:// instead of http:// indicating a secure link between you and the website). While most people don't bother, you should also check the secure link is actually to the website you are purchasing from. You can do this in Internet Explorer by double clicking the secure padlock in your browser to see the SSL certificate details. The certificate should be valid (not expired) and issued to the website you are buying from. We have implemented an SSL-secured link so that your credit card details can not be read by hackers or anybody else for that matter as they pass across the internet.



Also, and this is critical, all previous credit card number theft by hackers that you may have heard about have occurred when a website has not securely stored credit card numbers on their server AFTER they have traveled over the internet. There has not been one single case where intercepted SSL-secured credit card numbers have been stolen as they travel across the internet. SSL is an extremely secure cryptographic algorithm that can not be broken to reveal your credit card details. It is used by hundreds of thousands of e-commerce sites today and is the industry standard.

Therefore to eliminate all risk we do not hold your credit card numbers on our server at all. We simply pass your encrypted credit card details immediately to our credit card processing agents, WorldPay, who are specialists in credit card processing. WorldPay are part of the Royal Bank of Scotland Group, the 5th biggest banking group in the world and have advanced server security measures installed. For further details on SSL implementation visit www.genedetect.com/privacy.htm#SSL and on WorldPay visit www.genedetect.com/privacy.htm#WP.



30. I have some questions about your AAV (rAVE™) products. Do you have a rAVE™ FAQ too?

Yes we do. Please see the *GeneDetect™ rAVE™ Products* Section of this Catalog or visit our online rAVE™ FAQ Webpage at www.genedetect.com/ravefaq.htm.

31. I am based in XXX country. Can you still ship to me in a timely fashion.

Yes we can. All GeneDetect probe orders are delivered within 7-10 days no matter your location. We ship to all four corners of the world, from Norway to North America from Pakistan to Australia. Please feel free to contact us for further details.



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GENERAL INFORMATION

Terms and Conditions of Use

General Terms and Conditions of Trade

1. Acceptance Governing Provisions: In these General Terms and Conditions (the "Conditions") "we," "us," and "our" means GeneDetect.com Limited, and "you" and "your" means the person, company or other legal entity that orders or buys goods from us and in each case their respective successors and/or assigns. We are shipping these goods subject to these Conditions. You will be deemed to have assented to these Conditions unless you return the goods to us within 14 days after your receipt of the goods. Our failure to object to provisions contained in any purchase order or other form or document from you shall not be construed as a waiver of these Conditions nor an acceptance of any such provision. These Conditions, including all writings incorporated herein by reference, and those specific terms of a purchase order or other document that are either consistent with these Conditions or expressly agreed upon by us in writing, constitute the entire contract between us (the "Contract"), and supersede all prior agreements and understandings between us, whether written or oral, relating to the subject matter hereof. If one or more of these Conditions are held to be invalid, illegal, or unenforceable by a court of competent jurisdiction, the remaining Conditions shall be unimpaired.

2. Delivery: Unless specified differently in writing, all sales are FOB destination, prepaid and charged. The title (ownership) of goods will pass from us to you at the delivery point specified as your ship-to address. You will be invoiced for freight. We reserve the right to make delivery in installments, all such installments to be separately invoiced and paid for when due per invoice.

3. Inspection and Returns: Upon your receipt of goods shipped hereunder, you shall inspect the goods and notify our Technical Services Scientific@GeneDetect.com or Customer Services Departments Sales@GeneDetect.com of any claims for shortages, defects or damages. If you fail to so notify us within 14 days after you receive the goods, the goods shall conclusively be deemed to conform to these Conditions and to have been irrevocably accepted by you. Authorization for all product returns must be approved by our Technical Services or Customer Services Department and a return authorization number given to you prior to the return of goods. Not all items will be authorized for return, due to temperature and packing requirements. Items authorized for return must arrive at our facilities in a state satisfactory for resale to be eligible for product credit. A restocking charge of 25% or USD\$50 (whichever is greater) shall be charged on returns that are not the result of any error or fault of ours. Shipping charges will not be credited. Goods may not be returned for credit after 14 days after your receipt of the goods.

4. Credits and Refunds: At our discretion, we may issue a product credit or refund for the product value and shipping charges. No product credit shall be available for use if a past due balance is outstanding on the account.

5. Payments: Unless otherwise specified in a written quotation we provide to you or written contract between the parties: goods will be billed at the price in effect at the time shipment is made; such prices shall be subject to change from time to time without notice; terms of sale are net 30 days of date of invoice, in U.S. Dollars unless otherwise indicated on the invoice. If you default in making any payment to us when due, we, at our option and without prejudice to our other lawful remedies, may defer delivery or cancel the Contract. We reserve the right to add interest to overdue accounts.



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7. Warranty: GeneDetect.com Ltd. warrants our products as free of defects in design, materials, and workmanship. THE FOREGOING WARRANTY IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OF EVERY KIND AND NATURE, INCLUDING THE WARRANTIES OF MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE. In the event of a breach of warranty, our sole obligation shall be to replace any product purchased that does not conform to the foregoing warranty or at our discretion a credit or refund in accordance with Section 4 above. Without limiting the generality of the foregoing, GeneDetect.com Ltd. shall not be liable in tort, contract or otherwise for any incidental, consequential or special damages. All products manufactured and/or distributed by GeneDetect.com Ltd. should be used in accordance with the products' labeled intended use.

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8. Compliance with Laws and Regulations: We certify that to the best of our knowledge our goods are produced in compliance with all applicable Laws and Regulations.

9. Intellectual Property Rights

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9.1. We warrant to you that the manufacture and sale by us of goods manufactured by or for us without reliance upon instructions, specifications, or other directions provided by you and delivered hereunder, to our knowledge will not infringe the claims of any patent, trademark or copyright ("Intellectual Property") of any third party. We do not warrant that the manufacture and sale by us of goods manufactured in reliance upon instructions, specifications, or other directions provided by you or your use or resale of goods delivered hereunder will not infringe the claims of any Intellectual Property of any third party.



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GENERAL INFORMATION

9.2. If any claim is made against you or us for infringement of Intellectual Property rights of any third party arising from the manufacture or sale of goods by us in circumstances in which the manufacture of such goods was not based upon instructions, specifications, or other directions provided by you, we shall assume the defense of any ensuing litigation and conduct all negotiations for settlement of such claims and will bear the costs of any payment made in settlement or resulting from an award; provided that you shall give us notice in writing as early as is reasonably practicable of any such claim being made or action threatened or brought against you, shall make no admission of liability or take any other action in connection with such matter and shall permit us to defend such claim and shall (at our expense) give all reasonable information, co-operation and assistance to us (including without limitation lending your name to proceedings) in relation thereto. The foregoing describes our entire liability to you and your exclusive remedies against us in connection with claims made against you based on or resulting from such infringement of Intellectual Property rights of third parties.

9.3. If any claim is made against us for infringement of Intellectual Property rights of any third party as a result of (i) the manufacture or sale of goods based upon instructions, specifications, or other directions provided by you or (ii) your use or resale of goods purchased from us, you shall indemnify us, defend us and hold us harmless from and against any and all losses, damages and expenses (including reasonable attorneys' fees and other costs of defending any action) that we may incur as a result thereof. You shall fully cooperate with us in any investigation relating to any such claims and make available to us all related statements, reports and tests available to you.

10. Authorized Uses

10.1. Except as otherwise agreed in writing by our authorized representative, the purchase of goods only conveys to you the non-transferable right for only you to use the quantity of goods and components of goods purchased in compliance with the applicable intended use statement, limited use statement or limited label license, if any, in our catalogs or on the label or other documentation accompanying the goods (all such statements or licenses being incorporated herein by reference as if set forth herein in their entirety).

10.2. Unless otherwise expressly indicated in our catalogues or on the label or other documentation accompanying the goods, the goods are intended and AUTHORIZED FOR RESEARCH USE ONLY and are not to be used for any other purposes including, but not limited to, unauthorized commercial purposes, in vitro diagnostic purposes, ex vivo or in vivo therapeutic purposes, investigational use, in foods, drugs, devices or cosmetics of any kind, or for consumption by or use in connection with or administration or application to humans or animals. You acknowledge that the goods have not been tested by or for us for safety or efficacy, unless expressly stated in our catalogues or on the label or other documentation accompanying the goods. Without limiting the foregoing restrictions, you warrant to us that should you use or sell the goods for any use other than research, you shall conduct all necessary tests, comply with all applicable regulatory requirements, issue all appropriate warnings and information to subsequent purchasers and/or users and be responsible for obtaining any required Intellectual Property rights.

10.3. Without limiting the foregoing restrictions, you represent and warrant to us that: you will properly test, use, and, to the extent authorized, manufacture and market any goods purchased from us and any final articles made from them in accordance with the practices of a reasonable person who is an expert in the field, including, but not limited to, a technically qualified individual, and in strict compliance with all applicable national, state, provincial, and local food, drug, device, and cosmetic and other relevant laws and regulations, now and hereinafter enacted; and any final articles manufactured from the goods shall not be adulterated or misbranded.



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GENERAL INFORMATION

10.4. You have the responsibility to conduct any research necessary to learn the hazards involved for any of your uses of goods purchased from us and to warn your customers, employees and any auxiliary personnel (such as freight handlers, etc.) of any risks involved in using or handling the goods. You agree to comply with instructions for use of the goods furnished by us, if any, and not to misuse the goods. If the goods purchased from us are to be repackaged, relabeled or used as starting materials or components of other products, you will verify our assay of the goods, qualify the goods provided by us for such applications, and comply with all governmental requirements relating to labeling or providing other communications to customers. Material Safety Data Sheets (MSDSs) for our products are available on our web site at www.genedetect.com. You confirm that, as a condition of sale for the purchased goods, you have Internet access and agree to download from our web site the correct and complete MSDS for each hazardous product ordered. You also agree to inform your employees of the risks, if any, involved in using or handling the goods and to train and equip them to handle the goods safely.

11. Indemnity: You shall, at your own expense, indemnify us, defend us and hold us harmless from and against any and all losses, damages and expenses (including reasonable attorneys' fees and other costs of defending any action) that we may incur as a result of any claim of negligence, breach of implied warranty, strict liability in tort, or other theory of law, by you, your officers, agents or employees, your successors and assigns, and your customers, whether direct or indirect, in connection with the use or resale of any goods sold pursuant hereto either as a standalone product or a component part or raw material of another product, or by reason of your breach of or failure to perform any of your obligations hereunder, except to the extent provided in Condition 9.2 above or caused by a breach by us of the express warranty set forth in Condition 7 herein. You shall notify us promptly of any incident involving goods sold pursuant hereto resulting in personal injury or damage to property, and you shall fully cooperate with us in the investigation of such incident and provide us with all related statements, reports and tests available to you.

12. Technical Assistance: Unless otherwise agreed, all technical assistance and information we provide to you regarding the goods will be provided gratis, and you assume sole responsibility for results obtained in reliance thereon. We make no warranty regarding such technical assistance or information.

13. Miscellaneous: The Contract shall be governed by and construed in accordance with the laws of New Zealand, without giving effect to the principles of conflicts of laws. Our exercise of any option, or failure to exercise any rights hereunder shall not constitute a waiver of our rights to damages for breach of contract and shall not constitute a waiver of any subsequent failure, delay, or breach by you. We may assign our rights and/or obligations under the Contract to any person in whole or in part.

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GENERAL INFORMATION

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Your account: If you use our website, you are responsible for maintaining the confidentiality of your account and password and for restricting access to your computer, and you agree to accept responsibility for all activities that occur under your account or password.

Copyright complaints

We respect the intellectual property of others. If you believe that your work has been copied in a way that constitutes copyright infringement, please contact us Legal@GeneDetect.com

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By visiting our website you agree that the laws of New Zealand, without regard to principles of conflict of laws, will govern these Terms and Conditions of Use and any dispute of any sort that might arise between you and GeneDetect.com Limited.



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GENERAL INFORMATION

Privacy and Security Policy

GeneDetect.com Limited has created this Privacy Policy in order to demonstrate our firm commitment to your privacy and to the protection of your information.

As part of the normal operation of services, we collect and, in some instances may disclose information about you. To better protect your privacy we provide this notice explaining our information practices and the choices you can make about the way your information is collected and used. To protect your information we have implemented the most advanced e-security measures available today. The means by which we secure your information are also explained in detail.

1. Information GeneDetect.com Ltd collects.

Our "Customer Account" set up form requires users to give contact information (like your name and email address), unique identifiers (like your password), and demographic information. Certain information, such as passwords and e-mail addresses are collected in order to, among other things, verify your identity and for use as logins, passwords and account numbers in our record system ("Contact Information").

Our website www.GeneDetect.com uses a cookie to temporarily store information on your computer. The cookie we deposit allows our shopping basket software to "remember" the contents of your shopping basket as you move between pages within our site. This cookie is removed from your computer as soon as you finish shopping with us.

Therefore it cannot be used by other sites to track your shopping habits or to identify you.

If you decide to purchase any products or services we offer, then we may need to collect certain financial information, such as your credit card number, credit card expiration date, and billing address ("Financial Information"). Financial Information that is collected is used to check your qualifications for registration, to bill you for products and services, and for other purposes.

We do not share your Contact or Financial Information with outside parties except to the extent necessary to provide you with the products and services offered on our site.

2. Our Use of Your Information.

If you give us your permission, we may use customer "Contact Information" from the "Customer Account" setup form to send you information about GeneDetect.com and updated promotional material from us and in some cases some of our partners. You will always be able to "opt out" of these mailings.

3. Our Disclosure of Your Information.

We never use or share the personally identifiable information provided to us online in ways unrelated to the ones described in this Privacy Policy without also providing you an opportunity to opt-out or otherwise prohibit such unrelated uses.

GeneDetect.com will never willfully sell or rent for consideration any personally identifiable information about you or your business (including associated email addresses) to any third party without first receiving your permission.

However GeneDetect.com cannot ensure that all of your personally identifiable information will never be disclosed in ways not described in this Privacy Policy. For example, we may be required to disclose personally identifiable information to the government or by court order under certain circumstances, or



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GENERAL INFORMATION

other situations may arise requiring such disclosure. In addition, you authorize us to disclose any information about you to law enforcement or other government officials as we, in our sole discretion, believe necessary or appropriate.

Our sites may contain links to other sites. We are not responsible for the privacy practices or the content of other Web sites.

4. Security.

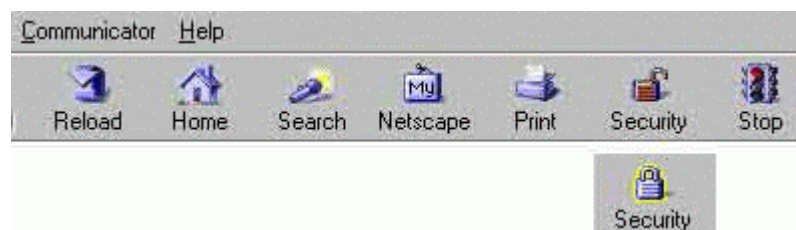
In order to maximize protection of your information, GeneDetect.com uses state of the art technology to protect your "Contact and Financial Information" from use, misuse or alteration by unauthorized third parties.

Securing your "Contact and Financial Information":

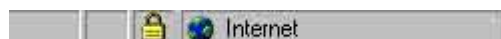


Every time you send us your "Contact and Financial Information" we use industry-standard 128-bit Secure Sockets Layer (SSL) encryption technology to prevent the information from being "read" by an interested third party as it is transmitted over the Internet. When implemented correctly SSL does not prevent your data being intercepted, rather it ensures that should it be intercepted it is unreadable by the third party.

In Netscape Navigator versions 4.0 and higher, the padlock on the menu bar will change from open to closed indicating an SSL-secured session. In earlier versions of Netscape, the key in the lower left hand corner of the browser window will change from being "broken" to being solid.



In Internet Explorer 3.x, 4.x, 5.x and 6.x SSL is indicated by displaying a padlock in the lower-right corner of the browser window.



Secure Sockets Layer, SSL, is the industry standard security technology for creating an encrypted link between a web server and a browser. This link ensures that all data passed between our web server and your browser remain private and integral. SSL is used by millions of websites in the protection of their online transactions with their customers. In order to be able to generate an SSL link, a web server requires an approved and validated SSL Certificate. Our certificate was issued by Equifax (www.geotrust.com) the world's second largest secure Certificate Authority (CA).



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GENERAL INFORMATION

Securing your "Credit Card details":



To ensure that your credit card details are even more secure, we never actually store your unencrypted (readable or plaintext) credit card number, name and address on our server. Rather your card details are sent encrypted directly to our credit card processing partner, WorldPay Ltd (www.worldpay.com). WorldPay is one of the longest established companies in eCommerce world wide today. By using Thawte 2048 bit digital signatures for authentication and 128-bit SSL at the browser level for encryption you can be assured we have implemented the most advanced electronic security measures available today to keep your credit card details secure.

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Or, you can send mail to the following postal address: 209 Taylor Street, Suite 4, Blockhouse Bay, Auckland 1007, New Zealand.



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PRODUCTS

GeneDetect[®] Oligonucleotide Gene Probes

We supply over 4,000 Oligonucleotide Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications (see the *Custom Probe Design &/or Synthesis* Section of this Catalog below).

Introduction

"Gene Probe: A piece of DNA that binds specifically to a particular gene or part of a gene"

In measuring tissue gene expression, independent of the technique used, the sequence of the gene probe must be complementary to the nucleotide bases of the specific mRNA or DNA sequence of interest. Gene probes can be as small as 20-40 base pairs or be up to 1000bp long. GeneDetect[®] Oligonucleotide Gene Probes are produced synthetically by an automated chemical synthesis using sequences derived from the GeneDetect[®] Oligonucleotide Probe Database and are usually 40-50 nucleotides long. The majority of our probes are validated by prior publication in the scientific literature. Each online product description contains a link to published article(s) in medline that have used and characterized the probe.

Uses Of GeneDetect[®] Oligonucleotide Gene Probes

GeneDetect[®] Oligonucleotide Gene Probes can be used in any of the following techniques.

In situ hybridization
 Dot/slot blotting
 Colony/plaque hybridization
 Northern blots
 Southern blots

For a detailed discussion and tips on *In Situ* Hybridization, visit our dedicated In Situ Hybridization Webpage online at www.genedetect.com/insitu.htm.

Protocols for using GeneDetect[®] and GreenStar[™] Oligonucleotide Probes for in situ hybridization are available for download at www.genedetect.com/protocols.htm.



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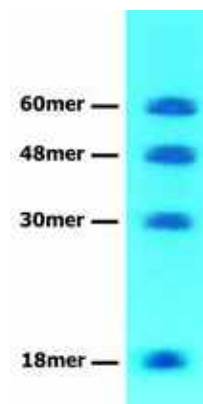
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GeneDetect® Oligonucleotide Gene Probes

How Supplied

GeneDetect® oligonucleotide gene probes are supplied lyophilized with 2500 pmoles (~35ug) of unlabeled probe per vial. All probes are cartridge purified to ensure product supplied is >95% full length meaning that you do not get a random mixture of half synthesized probes that could lead to increased background staining or cross hybridization to non-targeted genes. Probes are also available labeled with either Biotin, FITC, Rhodamine or Digoxigenin (DIG) [Digoxigenin is licensed from Roche Diagnostics GmbH]. Read below to determine the labeling method that will most closely suit your needs.



When you purchase a standard probe pack you are supplied with three single-stranded GeneDetect® Oligonucleotide Gene Probes (labeled or unlabeled) in sufficient quantities that allow for many hybridization experiments to be performed. The figure above right shows the typical purity obtained by cartridge-purifying your GeneDetect® probes. Cartridge purification works well over a wide range of probe lengths.

A standard GeneDetect™ Oligonucleotide Gene Probe pack contains THREE oligonucleotides:



1. an Antisense (complementary) probe to the gene of interest
2. its Sense (control) companion and
3. a Poly(dT) probe that allows you to confirm the quality of the mRNA in your sample.

You also receive full probe sequence information in the Product Specification Sheet, copies of up to three journal articles that have characterized and used the probe, protocols and relevant GenBank FASTA/BLAST printouts showing target specificity.

You are also eligible for full technical support from our resident expert scientists via email to Scientific@GeneDetect.com to ensure successful use of the probe within your experiments. All technical support questions are answered within 24 hours.



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GeneDetect[®] Oligonucleotide Gene Probes

Labeling Options

Available labeling options are described below and a summary table appears at the end.

GeneDetect[®] Unlabeled Oligonucleotide Probes

GeneDetect[®] Oligonucleotide Probes can be supplied unlabeled. These can be useful for competition experiments to assess the specificity of your GreenStar^{*™} staining and can be independently utilized for performing radioactive in situ hybridization.

GeneDetect[®] 5' Labeled Oligonucleotide Probes

We can supply probes 5' labeled with one molecule of either Biotin, FITC or Rhodamine. You will need to specify the labeling required when making your order.

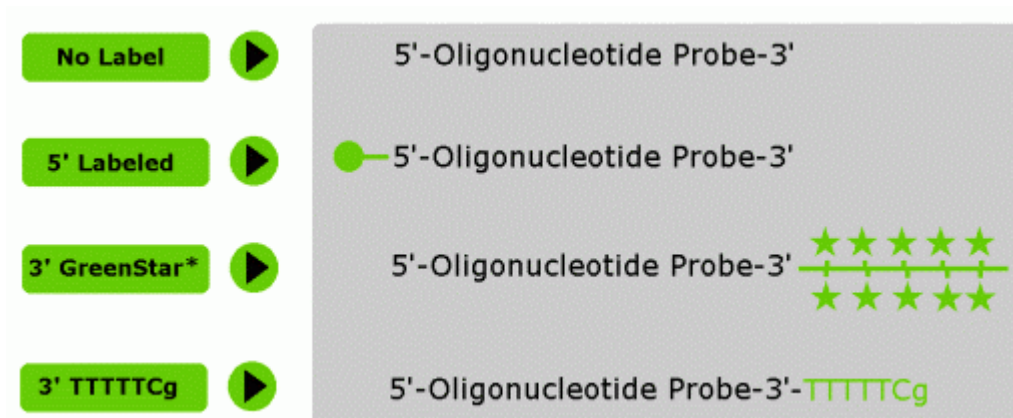
GreenStar^{*™} 3' Labeled Oligonucleotide Probes

GreenStar^{*™} hyperlabeled probes are optimized for use with in situ hybridization. GreenStar^{*™} hyperlabeled probes have 10 x label molecules added to the 3' end for enhanced sensitivity. 10 molecules of either Biotin, FITC, Rhodamine or Digoxigenin (DIG) are attached to the 3' end of the probe. These labels are optimally spaced for enhanced detection of the probe using standard methods.

For a detailed discussion and tips on *In Situ* Hybridization, visit our dedicated In Situ Hybridization Webpage online at www.genedetect.com/insitu.htm.

GeneDetect[®] 3' TTTTTCg Labeled Oligonucleotide Probes

On request we are also able to add to your GeneDetect[®] probe(s) the 3' TTTTTCg linker enabling oligonucleotide labeling with direct fluorescent 3DNA Starfish[™] technology. Starfish[™] is a trademark of Genisphere Inc (www.Genisphere.com). In this case you will also need to purchase the probe labeling kit from Genisphere Inc.



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GeneDetect[®] Oligonucleotide Gene Probes

Summary of current probe labeling options that can be selected during probe purchase:

<u>Label</u>	<u>Amount of Probe Supplied</u>
Unlabeled	2500 pmoles or ~ 35µg
5' Biotin	5000 pmoles or ~ 70µg
5' FITC	5000 pmoles or ~ 70µg
5' Rhodamine	5000 pmoles or ~ 70µg
3' GreenStar* TM Biotin	350 pmoles or ~ 5µg
3' GreenStar* TM FITC	350 pmoles or ~ 5µg
3' GreenStar* TM Rhodamine	350 pmoles or ~ 5µg
3' GreenStar* TM DIG	350 pmoles or ~ 5µg
3' TTTTTCg linker	2500 pmoles or ~ 35µg

Which Labeling Method Is Best For Your Application?

<u>Label</u>	<u>Application</u>	<u>Suitability</u> High = +++++
5' label	In situ hybridization	++
	Dot/slot blotting	++++
	Colony/plaque hyb.	++++
	Northern blots	++++
	Southern blots	++++
GreenStar* TM	In situ hybridization	++++++
	Dot/slot blotting	++++
	Colony/plaque hyb.	++++
	Northern blots	++++
	Southern blots	++++

Protocols for using GeneDetect[®] and GreenStar*TM Oligonucleotide Probes for in situ hybridization are available for download at www.genedetect.com/protocols.htm.

Correct Storage And Handling

Storage

Standard lyophilized oligonucleotides are stable for many years if they are stored frozen at -20°C. When in solution however, to prolong shelf life the oligonucleotide should be kept frozen at -20°C preferably as a "stock solution" with a final concentration not much less than 15m M (~ 200ng/ul of a 48mer probe) in TE buffer (Tris-EDTA 10 mM, 1mM) buffer at pH 7.5-8.0.

A slightly alkaline buffer prevents possible depurination of the oligonucleotide. In an acid buffer A and G bases are eliminated, leading to oligonucleotide damage. While TE buffer is the preferred solution for oligonucleotide storage it is not necessarily the best solution for oligonucleotide use. TE buffer may interfere with various enzyme dependent reactions so the required amount of oligonucleotide probe should be removed from the stock solution and diluted in nuclease free distilled water for labeling or other procedures.

While oligonucleotides are very stable they are prone to BACTERIAL attack. Use autoclaved tips and tubes.



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GeneDetect[®] Oligonucleotide Gene Probes

Storage versus (stability)

Dissolved at 25°C (1 week to 3 months)
Lyophilized at 25°C (2 months to 1 year)
Dissolved (<<15mM) at -20°C (1 year to 3 years)
Dissolved (>15mM) at -20°C (3 years+)
Lyophilized at -20°C (indefinite)

5' or 3' labeled oligonucleotide probes should be kept away from air. Making sure the aliquot tube screw cap is on properly and that tubes are kept in properly closed ziplock bags should suffice. Fluorescent-labeled probes (FITC and rhodamine) should be shielded from light to prevent bleaching. Cover the tube in aluminum foil.

Repeated freeze-thawing can dramatically lower the shelf life of an oligonucleotide.

Handling

When you receive your GeneDetect[®] oligonucleotide gene probe it may be difficult to see the lyophilized oligonucleotide at the bottom of the tube. To resuspend the oligonucleotide please follow this procedure in a step wise fashion.

1. Centrifuge the tube for a few seconds to ensure the oligonucleotide probe is fully collected at the bottom of the tube.
2. Then carefully open the tube. Be aware that electrostatic charge build-up on standard laboratory gloves can cause DNA pellets to leave aliquot tubes. We suggest you hold the tube right at the bottom and slowly remove the cap.
3. Add an appropriate amount of TE buffer or sterile nuclease free water, close the tube, allow to rehydrate for 2 minutes.
4. Mix the tube by hand for a minute before using a vortex on the solution for 15 seconds. Re-centrifuge the solution. Aliquot and/or store the oligonucleotide probe.

Our detailed **Oligonucleotide Probe Information Sheet** Packet containing handling, storage and use instructions is available for download at www.genedetect.com/protocols.htm.



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GeneDetect® Oligonucleotide Gene Probes

The GeneDetect® Oligonucleotide Probe Database

The GeneDetect® oligonucleotide probe database was created over a year ago and is continually being updated. Presently it holds the "corrected" nucleotide sequences of over 4000 oligonucleotide gene probes referenced in peer-reviewed scientific journals to successfully detect tissue gene expression. Increasingly the sequences of proprietary probes designed in-house are being added to this database. Significantly, the sequences of all entries derived from the scientific literature are checked by our staff prior to inclusion since we have found a sequence error rate of approximately 4% in these sequences. Limited access to this database is provided free via our website.

1. Use this website to search for a gene/mRNA whose expression you are interested in
2. Find the corresponding GeneDetect® oligonucleotide gene probe
3. Follow the hyperlink from the Product Description to the Medline citation(s) of the original article(s) characterizing the Probe and tissue expression of the gene/mRNA.

Specific sequence information is available from this database. Please contact us for pricing via Sales@GeneDetect.com



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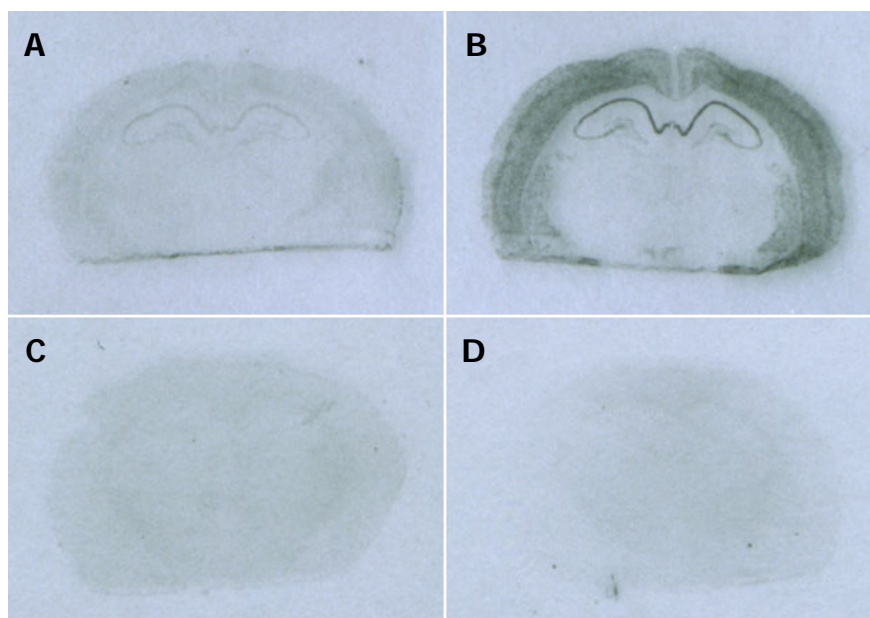
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Control Probes

Control Probes

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect® Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
Control Probes (Pan β -Actin Antisense and Sense, Nonsense Probe, Poly(dT) Probe) 48mers	All species	GD5000-OP
β -Actin	Rat	GD2313-OP
β -Actin	Human	GD2318-OP
β -Actin	Mouse, Pig, Hamster	GD2316-OP
Tubulin	Rat	GD2319-OP
GAPDH	Rat, Human	GD1935-OP
GAPDH	Rat	GD1949-OP
GAPDH	Human	GD1934-OP



Detection of the transcription factor NGFIA in rat brain using Product Code #GD1831-OP GeneDetect® Oligonucleotide Probe Pack. In situ hybridization was performed using the ³⁵S-labeled Antisense & Sense probes GD1831-OP. (A) shows the low expression of NGFIA under basal conditions and (B) shows drug-induced expression of NGFIA in rat brain. NGFIA expression in (A) & (B) was detected using the Antisense probe supplied with the pack. To determine the specificity of the signal seen in (B), sections from the same brain were hybridized with either (C) the corresponding Sense probe also supplied in the pack, or (D) treated with RNase prior to hybridization with the Antisense probe.



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Custom Probe Design &/or Synthesis

Custom Probe Design

Custom Probes can be prepared to almost any gene target!

Custom Probe Design. Product Code = GD1001-CD. Send the GenBank accession number of the gene of interest or raw sequence data and we will use proprietary bioinformatic techniques to design a specific oligonucleotide probe for you. You will receive the designed probe sequence (both sense and antisense) via e-mail. A full report detailing how your probes were designed will also be sent. You will be responsible for synthesis, labeling and purification of the probes at your facility.

Custom Probe Synthesis. Product Code = GD1001-CS. We can synthesize oligonucleotides to your exacting specifications. Send us your sequence(s) and labeling modification(s) required and we will synthesize both sense and antisense probes for you. To assess the effectiveness of your detection methods and as a control for RNA sample quality a poly(dT) probe is included with this product. All probes are cartridge purified to ensure a high percentage (>95%) of full length product. You will receive our standard protocol sheets which allow for the optimal use of your custom Oligonucleotide Gene probe in various standard gene detection techniques.

Label	Amount of probe supplied
Unlabeled	2500 pmoles or ~ 35µg
5' Biotin	5000 pmoles or ~ 70µg
5' FITC	5000 pmoles or ~ 70µg
5' rhodamine	5000 pmoles or ~ 70µg
3' GreenStar*™ Biotin	350 pmoles or ~ 5µg
3' GreenStar*™ FITC	350 pmoles or ~ 5µg
3' GreenStar*™ Rhodamine	350 pmoles or ~ 5µg
3' GreenStar*™ Digoxigenin (DIG)	350 pmoles or ~ 5µg
3' TTTTTCg linker	2500 pmoles or ~ 35µg

Custom Probe Design and Synthesis. Product Code = GD1001-DS. A complete service. We will both design and synthesize an oligonucleotide probe with exacting specificity to selectively detect your gene or sequence of interest in expression studies. Send the GenBank accession number of the gene of interest or raw sequence data and any labeling modification(s) required when we synthesize the probes. Both sense and antisense probes will be designed and synthesized. To assess the effectiveness of your detection methods and as a control for RNA sample quality a poly(dT) probe is included with this product. All probes are cartridge purified to ensure a high percentage (>95%) of full length product. A full report detailing how your probes were designed will be enclosed. You will receive our standard protocol sheets which allow for the optimal use of your custom Oligonucleotide Gene probe in various standard gene detection techniques.



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Adhesion Factors, Extracellular Matrix, & Structural Molecules

Adhesion Factors

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect® Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
E-cadherin	Human	GD2283-OP
E-cadherin	Human	GD2282-OP
IAP (integrin associated protein)	Rat	GD2284-OP

Extracellular Matrix

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect® Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
collagen type I	Rat, Mouse, Human, Chicken, Dog, Cow	GD2285-OP
collagen type I alpha	Rat	GD2288-OP
collagen type I alpha	Mouse	GD2287-OP
collagen type I alpha	Mouse, Human	GD2286-OP
collagen type II	Chicken	GD2291-OP
collagen type II	Rabbit	GD2290-OP
collagen type II	Mouse, Human, Dog, Zebu, Thale Cress	GD2289-OP
collagen type III alpha	Mouse	GD2292-OP
collagenase (also called matrix metalloproteinase-(MMP) 13)	Human	GD2293-OP
collagenase type IV	Human	GD2294-OP
ependymin	Fish	GD2295-OP
laminin 1 alpha-1	Mouse	GD2296-OP
MMP-1 (matrix metalloproteinase 1, also called fibroblast collagenase)	Human , Frog, Pig	GD2297-OP
MMP-13 (matrix metalloproteinase 13, also called collagenase 3)	Human	GD2298-OP
MMP-2 (matrix metalloproteinase 2, also called gelatinase A)	Rat, Mouse	GD2300-OP
MMP-8 (matrix metalloproteinase 8, also called neutrophil collagenase)	Hamster, Guinea pig, Human	GD2301-OP
nidogen (also called entactin)	Mouse	GD2302-OP



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GeneDetect® Oligonucleotide Gene Probes		www.GeneDetect.com
procollagen I	Human	GD2304-OP
procollagen I	Human	GD2303-OP
procollagen I alpha-1	Human	GD2305-OP
<u>Structural Molecules</u>		
<p>Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the <i>GeneDetect® Custom Probe Design &/or Synthesis</i> Section of this Catalog.</p>		
<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
actin	Human	GD2306-OP
alpha-actin	Chicken	GD2307-OP
alpha-actin	Chicken	GD2308-OP
alpha-actin	Chicken	GD2309-OP
alpha-actin, cardiac	Rat	GD2310-OP
alpha-actin, skeletal	Rat	GD2311-OP
alpha-spectrin	Rat	GD2312-OP
beta-actin	Rat	GD2313-OP
beta-actin	Human, Lizard, Puffer Fish	GD2314-OP
beta-actin	Human	GD2318-OP
beta-actin	Pig, Mouse	GD2315-OP
beta-actin	Mouse, Pig, Hamster	GD2316-OP
beta-actin	Human, Crab, Squid, Banana	GD2317-OP
beta-tubulin	Rat	GD2319-OP
MAP 2a & 2b (microtubule associated protein 2a & 2b)	Rat	GD2320-OP
MAP2b (Microtubule associated protein 2b)	Rat, Mouse, Human	GD2321-OP
MAP2c (microtubule associated protein 2c)	Rat	GD2322-OP
MAP4a (microtubule associated protein 4a)	Rat, Mouse	GD2323-OP
MAP5 (microtubule associated protein 5)	Rat	GD2324-OP
troponin I cardiac form	Human	GD2325-OP
troponin I slow-twitch form	Human	GD2326-OP


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Cell Biology (Intracellular Signaling, Ion Signaling, Metabolic Factors)

<u>Intracellular Signaling</u>

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect[®] Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
AC (adenylyl cyclase)	Rat	GD1904-OP
AC type I (adenylyl cyclase type I)	Mouse	GD1881-OP
AC type II (adenylyl cyclase type II)	Rat	GD1884-OP
AC type V (adenylate cyclase type V)	Rat	GD1888-OP
AC type VIII (adenylyl cyclase type VIII)	Rat	GD1911-OP
beta-ARK (beta-adrenergic receptor kinase)	Rat	GD1880-OP
calcineurin A-alpha	Rat	GD1910-OP
calcineurin A-alpha	Rat	GD1893-OP
calcineurin A-beta	Rat, Mouse	GD1908-OP
calcineurin A-beta	Rat	GD1890-OP
calmodulin	Mouse, Human	GD1885-OP
CaMI (calmodulin I)	Rat	GD1905-OP
CaMI (calmodulin I)	Rat	GD1915-OP
CaMII (calmodulin II)	Rat	GD1916-OP
CaMII (calmodulin II)	Rat	GD1900-OP
CaMIII (calmodulin III)	Rat, Mouse	GD1907-OP
CaMIII (calmodulin III)	Rat	GD1899-OP
CAM-KII-alpha (calcium/calmodulin-dependent protein kinase type-II alpha subunit)	Rat, Mouse, Human	GD1879-OP
CaM-KIV-alpha (calcium/calmodulin-dependent protein kinase type IV-alpha)	Rat	GD1882-OP
CaM-KIV-beta (calcium/calmodulin-dependent protein kinase type IV-beta)	Rat	GD1896-OP
CaM-PDE (calmodulin-dependent phosphodiesterase)	Rat	GD1909-OP
ERK1 (extracellular signal regulated kinase 1)	Rat	GD1894-OP
ERK2 (extracellular signal regulated kinase 2)	Rat	GD1878-OP
G11 (G-protein G11 alpha subunit)	Mouse	GD1892-OP
GC (guanylyl cyclase)	Rat	GD1889-OP
GoA (G-protein GoA alpha subunit)	Rat, Mouse, Hamster	GD1898-OP
GoA (G-protein GoA alpha subunit)	Mouse, Hamster	GD1895-OP
GoB (G-protein GoB alpha subunit)	Mouse	GD1914-OP
Golf (G-protein olfactory subtype)	Rat	GD1876-OP
Gq (G-protein Gq alpha subunit)	Mouse	GD1883-OP
Gs (G-protein Gs alpha subunit)	Dog, Human	GD1903-OP
PGHS-1 (prostaglandin H synthase 1)	Human	GD1902-OP



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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
PGHS-2 (prostaglandin H synthase 2)	Human	GD1897-OP
PKC-alpha (protein kinase C-alpha phospholipid-dependent)	Rat	GD1887-OP
PKC-beta (protein kinase C-beta phospholipid-dependent)	Rat, Mouse	GD1886-OP
PKC-delta (protein kinase C-delta)	Rat	GD1877-OP
PKC-epsilon (protein kinase C epsilon)	Rat	GD1906-OP
PKC-gamma (protein kinase C-gamma)	Rat	GD1875-OP
PKC-gamma (protein kinase C-gamma)	Rat	GD1891-OP
PKC-zeta (protein kinase C-zeta phospholipid-dependent)	Rat	GD1901-OP
PLC (phospholipase C)	Rat	GD1913-OP
PLC (phospholipase C)	Rat	GD1912-OP

Ion Signaling

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect® Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
ASSC (amiloride sensitive sodium (Na ⁺) channel)	Rat, Mouse	GD3003-OP
ASSC (amiloride sensitive sodium (Na ⁺) channel)	Rat	GD3021-OP
ASSC (amiloride sensitive sodium (Na ⁺) channel)	Rat	GD3046-OP
Ca LVA/T-alpha 1G (low voltage activated T-type calcium (Ca ²⁺) channel alpha 1G subunit)	Rat	GD3024-OP
Ca LVA/T-alpha 1G (low voltage activated T-type calcium (Ca ²⁺) channel alpha 1G subunit)	Rat	GD3068-OP
Ca LVA/T-alpha 1G (low voltage activated T-type calcium (Ca ²⁺) channel alpha 1G subunit)	Rat	GD3072-OP
Ca LVA/T-alpha 1H (low voltage activated T-type calcium (Ca ²⁺) channel alpha 1H subunit)	Rat	GD3018-OP
Ca LVA/T-alpha 1H (low voltage activated T-type calcium (Ca ²⁺) channel alpha 1H subunit)	Rat	GD3014-OP
Ca LVA/T-alpha 1H (low voltage activated T-type calcium (Ca ²⁺) channel alpha 1H subunit)	Rat	GD3017-OP
Ca LVA/T-alpha 1I (low voltage activated T-type calcium (Ca ²⁺) channel alpha 1I subunit)	Rat	GD3013-OP
Ca LVA/T-alpha 1I (low voltage activated T-type calcium (Ca ²⁺) channel alpha 1I subunit)	Rat	GD3069-OP
calbindin CaBP-28K	Human	GD3005-OP
calbindin CaBP-28K	Human	GD3006-OP
calbindin CaBP-28K	Human	GD3025-OP
calretinin	Chicken	GD3036-OP
Ca-R (calcium receptor)	Human	GD3009-OP
Ca-R (calcium receptor)	Human	GD3015-OP
EAG (ether-a-go-go)	Rat, Mouse	GD3052-OP
ERG (ether-a-go-go related gene)	Human	GD3047-OP



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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
GIRK1 (G-protein activated inwardly rectifying potassium (K+) channel 1)	Rat	GD3004-OP
GIRK2 (G-protein activated inwardly rectifying potassium (K+) channel 2)	Mouse	GD3064-OP
GIRK3 (G-protein activated inwardly rectifying potassium (K+) channel 3)	Mouse	GD3065-OP
GIRK4 (G-protein activated inwardly rectifying potassium (K+) channel 4)	Human	GD3066-OP
GIRK4 (G-protein activated inwardly rectifying potassium (K+) channel 4)	Human	GD3035-OP
IRK (inwardly rectifying potassium (K+) channel)	Human	GD3044-OP
IRK1 (inwardly rectifying potassium (K+) channel 1)	Rat	GD3060-OP
IRK2 (inwardly rectifying potassium (K+) channel 2)	Rat	GD3054-OP
IRK3 (inwardly rectifying potassium (K+) channel 3)	Mouse	GD3034-OP
IRK3 (inwardly rectifying potassium (K+) channel 3)	Mouse	GD3076-OP
Kv1.1 (voltage gated potassium (K+) channel Shaker subtype 1.1)	Human	GD3008-OP
Kv1.2 (voltage gated potassium (K+) channel Shaker subtype 1.2)	Rabbit, Human	GD3071-OP
Kv1.3 (voltage gated potassium (K+) channel Shaker subtype 1.3)	Human	GD3043-OP
Kv1.4 (voltage gated potassium (K+) channel Kv1.4 Shaker)	Cat, Human	GD3012-OP
Kv1.5 (voltage gated potassium (K+) channel Shaker subtype 1.5)	Human	GD3055-OP
Kv1.6 (voltage gated potassium (K+) channel Shaker subtype 1.4)	Human	GD3048-OP
Kv2.1 (voltage gated potassium (K+) channel Shab subtype 2.1)	Human	GD3070-OP
Kv2.2 (voltage gated potassium (K+) channel Shab subtype 2.2)	Rat	GD3049-OP
Kv3.2 (voltage gated potassium (K+) channel Shaw subtype 3.2)	Rat	GD3045-OP
Kv3.3 (voltage gated potassium (K+) channel Shaw subtype 3.3)	Human	GD3053-OP
Kv3.4 (voltage gated potassium (K+) channel Shaw subtype 3.4)	Human	GD3032-OP
Kv4.1 (voltage gated potassium (K+) channel Shal subtype 4.1)	Human	GD3057-OP
Kv4.2 (voltage gated potassium (K+) channel Shal subtype 4.2)	Rat, Human	GD3011-OP
Kv4.3 (voltage gated potassium (K+) channel Shal subtype 4.3)	Rat, Rabbit	GD3001-OP
Kv5.1 (voltage gated potassium (K+) channel subtype 5.1)	Rat	GD3002-OP
Kv6.1 (voltage gated potassium (K+) channel subtype 6.1)	Rat	GD3019-OP
KvLQT1 (voltage gated potassium (K+) channel Shaker)	Human	GD3051-OP
minK (minimal potassium (K+) channel)	Human	GD3033-OP
Na ⁺ ,K ⁺ -ATPase alpha-3 (sodium (Na ⁺), potassium (K ⁺) ATPase alpha-3 subunit)	Rat	GD3031-OP
NaCh 6 (voltage activated sodium (Na ⁺) channel alpha subunit 6)	Rat	GD3038-OP
NaCh 6 (voltage activated sodium (Na ⁺) channel alpha subunit 6)	Rat	GD3063-OP


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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
NaCh 6 (voltage activated sodium (Na ⁺) channel alpha subunit 6)	Rat	GD3026-OP
NaCh I & NaCh II (voltage activated sodium (Na ⁺) channel alpha subunits II & III)	Rat, Human	GD3041-OP
parvalbumin	Rat	GD3029-OP
parvalbumin	Rat	GD3039-OP
PMCA1 (plasma membrane calcium (Ca ²⁺) ATPase 1)	Human	GD3027-OP
PMCA1 (plasma membrane calcium (Ca ²⁺) ATPase 1)	Rat, Human	GD3074-OP
PMCA1 (plasma membrane calcium (Ca ²⁺) ATPase 1)	Rat	GD3022-OP
PMCA1 (plasma membrane calcium (Ca ²⁺) ATPase 1)	Rat	GD3075-OP
PMCA2 (plasma membrane calcium (Ca ²⁺) ATPase 2)	Rat	GD3028-OP
PMCA2 (plasma membrane calcium (Ca ²⁺) ATPase 2)	Rat, Mouse	GD3056-OP
PMCA2 (plasma membrane calcium (Ca ²⁺) ATPase 2)	Rat	GD3023-OP
PMCA3 (plasma membrane calcium (Ca ²⁺) ATPase 3)	Rat	GD3037-OP
PMCA3 (plasma membrane calcium (Ca ²⁺) ATPase 3)	Rat	GD3010-OP
PMCA3 (plasma membrane calcium (Ca ²⁺) ATPase 3)	Rat	GD3073-OP
PMCA4 (plasma membrane calcium (Ca ²⁺) ATPase 4)	Rat	GD3042-OP
PMCA4 (plasma membrane calcium (Ca ²⁺) ATPase 4)	Rat	GD3061-OP
PMCA4 (plasma membrane calcium (Ca ²⁺) ATPase 4)	Rat	GD3058-OP
S100	Human	GD3067-OP
SERCA2a (sarcoplasmic/endoplasmic reticulum calcium (Ca ²⁺) ATPase 2a)	Rabbit	GD3007-OP
SERCA2b (sarcoplasmic/endoplasmic reticulum calcium (Ca ²⁺) ATPase 2b)	Chicken	GD3059-OP
SK1 (small conductance voltage insensitive calcium (Ca ²⁺) activated potassium (K ⁺) channel 1)	Rat	GD3050-OP
SK1 (small conductance voltage insensitive calcium (Ca ²⁺) activated potassium (K ⁺) channel 1)	Rat	GD3020-OP
SK2 (small conductance voltage insensitive calcium (Ca ²⁺) activated potassium (K ⁺) channel 2)	Rat	GD3016-OP
SK2 (small conductance voltage insensitive calcium (Ca ²⁺) activated potassium (K ⁺) channel 2)	Rat	GD3040-OP
SK3 (small conductance voltage insensitive calcium (Ca ²⁺) activated potassium (K ⁺) channel 3)	Rat	GD3030-OP
SK3 (small conductance voltage insensitive calcium (Ca ²⁺) activated potassium (K ⁺) channel 3)	Rat	GD3062-OP
<u>Metabolic Factors</u>		
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<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
CO II (cytochrome oxidase II)	Human	GD1951-OP
CO II (cytochrome oxidase II)	Human	GD1921-OP



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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
CO IV (cytochrome oxidase IV)	Human, Orangutan, Gorilla, Chimpanzee, Baboon, Monkey	GD3000-OP
CRT1 (creatine transporter)	Rat	GD1925-OP
CYP aromatase (cytochrome P450 aromatase)	Rat	GD1928-OP
CYP aromatase (cytochrome P450 aromatase)	Rat	GD1923-OP
CYP reductase (cytochrome P450 reductase)	Rat	GD1950-OP
CYP17alpha (cytochrome P450 17-alpha)	Rat	GD1932-OP
CYP17alpha (cytochrome P450 17-alpha)	Rat	GD1947-OP
CYP11E1 (cytochrome P450 11E1)	Rat, Mouse	GD1941-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Human	GD1933-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Human, Cat, Horse, Pig, Rabbit, Dog	GD1939-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Rat, Human	GD1935-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Human, Fungi	GD1924-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Human	GD1944-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Rat, Mouse, Human, Sheep, Pig, Rabbit	GD1922-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Rat	GD1949-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Human	GD1934-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Human	GD1931-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Sheep, Cat, Human	GD1926-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Rat, Mouse, Rabbit, Woodchuck, Guinea-pig, Sheep, Pig, Hamster	GD1945-OP
GAPDH (glyceraldehyde-3-phosphate dehydrogenase)	Human	GD1930-OP
GLUT-1 (glucose transporter 1)	Rat	GD1955-OP
GLUT-3 (glucose transporter 3)	Rat	GD1956-OP
NADH 5 (NADH dehydrogenase subunit 5)	Rat	GD1954-OP
NAT1 (N-acetyltransferase 1)	Human	GD1952-OP
NAT1 (N-acetyltransferase 1)	Human	GD1937-OP
NAT1 (N-acetyltransferase 1)	Human	GD1938-OP
NAT1 (N-acetyltransferase 1)	Human	GD1943-OP
NAT1 (N-acetyltransferase 1)	Human	GD1920-OP
NAT1 (N-acetyltransferase 1)	Human	GD1917-OP
NAT2 (N-acetyltransferase 2)	Human	GD1940-OP
NAT2 (N-acetyltransferase 2)	Human	GD1953-OP
NAT2 (N-acetyltransferase 2)	Human	GD1942-OP
NAT2 (N-acetyltransferase 2)	Human	GD1919-OP
NAT2 (N-acetyltransferase 2)	Human	GD1918-OP
NAT2 (N-acetyltransferase 2)	Human	GD1948-OP
NAT-SS (N-acetyltransferase spermidine/spermine type)	Mouse	GD1927-OP
NAT-SS (N-acetyltransferase spermidine/spermine type)	Mouse, Hamster	GD1936-OP
ODC (ornithine decarboxylase)	Rat	GD1946-OP
PGK1 (phosphoglycerate kinase 1)	Yeast	GD1929-OP


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GeneDetect [®] Oligonucleotide Gene Probes		www.GeneDetect.com
Cell Stress		
<p>Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the <i>GeneDetect[®] Custom Probe Design &/or Synthesis</i> Section of this Catalog.</p>		
<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
GST Ya (glutathione S-transferase Ya subunit)	Mouse	GD1967-OP
GST Yb1 (glutathione S-transferase Yb1 subunit)	Mouse, Hamster	GD1969-OP
HSC70 (heat shock cognate 70)	Human	GD1960-OP
HSC70 (heat shock cognate 70)	Human	GD1957-OP
HSP25 (heat shock protein 25)	Mouse	GD1968-OP
HSP25 (heat shock protein 25)	Rat, Mouse	GD1970-OP
HSP47 (heat shock protein 47)	Mouse	GD1972-OP
HSP70 (heat shock protein 70)	Rat, Monkey, Human	GD1964-OP
HSP70 (heat shock protein 70)	Rat, Monkey, Human	GD1958-OP
HSP70 (heat shock protein 70)	Rat, Monkey, Human	GD1971-OP
HSP70-1 (heat shock protein 70-1)	Human	GD1965-OP
HSP72 (heat shock protein 72)	Rat, Monkey, Human	GD1963-OP
HSPA7 (heat shock protein 70 (HSP70) protein 7)	Human	GD1961-OP
HSX70 (heat shock protein 70)	Rat, Monkey, Human	GD1962-OP
SOD CuZn (copper-zinc superoxide dismutase)	Rat, Mouse	GD1973-OP
SOD Mn (manganese superoxide dismutase)	Rat	GD1966-OP
SOD1 (superoxide dismutase)	Yeast, Human	GD1959-OP

GeneDetect [®] Oligonucleotide Gene Probes		www.GeneDetect.com
Endocrinology (Hormones, Steroids, Endocrinology Other)		
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Hormones		
<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
androgen receptor	Human	GD1979-OP
AVP (arginine-vasopressin)	Rat, Human	GD1980-OP
beta-HCG (beta-human chorionic gonadotrophin)	Human	GD1981-OP
CGRP (calcitonin gene related peptide)	Rat	GD1982-OP



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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
CRF-R1 (corticotropin releasing factor receptor 1)	Human	GD1983-OP
CRF-R2 (corticotropin releasing factor receptor 2)	Human	GD1987-OP
CRF-R2 (corticotropin releasing factor receptor 2)	Rat, Human	GD1988-OP
CRF-R2 (corticotropin releasing factor receptor 2)	Rat, Mouse, Human	GD1986-OP
CRF-R2 (corticotropin releasing factor receptor 2)	Rat	GD1985-OP
CRF-R2 (corticotropin releasing factor receptor 2)	Rat	GD1984-OP
FSH (follicle stimulating hormone)	Rat	GD1989-OP
GH (growth hormone)	Human, Monkey	GD1990-OP
GH (growth hormone)	Human, Bacteria	GD1992-OP
GH (growth hormone)	Rat	GD1991-OP
GH-R (growth hormone receptor)	Rat, Sheep, Monkey, Cow, Pig, Chicken, Human	GD1993-OP
GHRH (growth hormone releasing hormone)	Rat	GD1994-OP
GHS-R1a & 1b (growth hormone secretagogue receptor 1a & 1b)	Rat	GD1995-OP
GHS-R1a & 1b (growth hormone secretagogue receptor 1a & 1b)	Rat	GD1996-OP
GHS-R1a (growth hormone secretagogue receptor 1a)	Rat	GD1997-OP
GHS-R1a (growth hormone secretagogue receptor 1a)	Rat	GD1998-OP
GnRH (gonadotropin releasing hormone)	Fish	GD2003-OP
GnRH (gonadotropin releasing hormone)	Rat	GD1999-OP
GnRH (gonadotropin releasing hormone)	Rat	GD2000-OP
GnRH (gonadotropin releasing hormone)	Rat	GD2001-OP
GnRH (gonadotropin releasing hormone)	Rat	GD2006-OP
GnRH (gonadotropin releasing hormone)	Human	GD2007-OP
GnRH (gonadotropin releasing hormone)	Fish	GD2005-OP
GnRH (gonadotropin releasing hormone)	Rat, Mouse	GD2004-OP
GnRH (gonadotropin releasing hormone)	Rat	GD2002-OP
GnRH (gonadotropin releasing hormone)	Human	GD2008-OP
GnRH I (gonadotropin releasing hormone I)	Fish	GD2011-OP
GnRH I (gonadotropin releasing hormone I)	Chicken	GD2010-OP
GnRH I (gonadotropin releasing hormone I)	Fish	GD2012-OP
GnRH I (gonadotropin releasing hormone I)	Chicken	GD2009-OP
GnRH II alpha (gonadotropin releasing hormone II alpha)	Shrew	GD2013-OP
GnRH II beta (gonadotropin releasing hormone II beta)	Fish	GD2015-OP
GnRH II beta (gonadotropin releasing hormone II beta)	Fish	GD2014-OP
GnRH-AP (gonadotropin releasing hormone (GnRH) associated peptide)	Monkey, Human	GD2016-OP
insulin	Monkey, Human	GD2017-OP
LH-beta (leutinizing hormone beta)	Rat, Mouse	GD2018-OP
OT (oxytocin)	Sheep	GD2020-OP
OT (oxytocin)	Rat	GD2019-OP
OT (oxytocin)	Rat	GD2021-OP
OT-R (oxytocin receptor)	Cow, Sheep	GD2022-OP
PL (placental lactogen)	Sheep	GD2023-OP
PLH (placental lactogen hormone)	Human	GD2028-OP


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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
PLH (placental lactogen hormone)	Human	GD2024-OP
PLH (placental lactogen hormone)	Human	GD2025-OP
PLH (placental lactogen hormone)	Human	GD2026-OP
PLH (placental lactogen hormone)	Human	GD2027-OP
preAVP (arginine-vasopressin precursor)	Rat	GD2029-OP
preproCRF (preprocorticotropin releasing factor)	Rat	GD2030-OP
preproCRF (preprocorticotropin releasing factor)	Rat	GD2031-OP
preproinsulin I	Rat, Mouse, Human, Rabbit, Chicken, Pig, Monkey, Chimpanzee	GD2032-OP
preproTRH (preprothyrotropin releasing hormone)	Rat	GD2033-OP
PRL (prolactin)	Human	GD2035-OP
PRL (prolactin)	Mink	GD2036-OP
PRL (prolactin)	Rat, Mouse	GD2034-OP
PRL-R (prolactin receptor)	Deer	GD2037-OP
PRL-RL (prolactin receptor long form)	Rat, Mouse	GD2038-OP
PRL-RL (prolactin receptor long form)	Rat	GD2039-OP
PRL-RS (prolactin receptor short form)	Rat	GD2040-OP
PRL-RS (prolactin receptor short form)	Rat	GD2041-OP
PTHrP (parathyroid hormone related protein)	Human	GD2043-OP
PTHrP (parathyroid hormone related protein)	Sheep, Human	GD2042-OP
PTHrP (parathyroid hormone related protein)	Human	GD2044-OP
relaxin H2	Chimpanzee, Human	GD2050-OP
relaxin H2	Human	GD2049-OP
relaxin H2	Chimpanzee, Gorilla, Human	GD2048-OP
relaxin H2	Chimpanzee, Human	GD2047-OP
relaxin H2	Chimpanzee, Human	GD2045-OP
relaxin H2	Chimpanzee, Human	GD2046-OP
relaxin H2	Chimpanzee, Gorilla, Orangutan, Human	GD2051-OP
TH-R beta-2 (thyroid hormone receptor beta-2)	Rat	GD2052-OP
TRH (thyrotropin releasing hormone)	Rat	GD2053-OP
TSH (thyroid stimulating hormone)	Rat	GD2054-OP
TSH (thyrotrophin)	Human	GD2055-OP
vasopressin-neurophysin II	Cow	GD2056-OP
VP (vasopressin)	Rat	GD2057-OP
VP (vasopressin)	Rat	GD2066-OP
VP (vasopressin)	Rat	GD2067-OP
VP (vasopressin)	Rat	GD2065-OP
VP (vasopressin)	Rat, Mouse	GD2064-OP
VP (vasopressin)	Rat	GD2063-OP
VP (vasopressin)	Rat	GD2062-OP
VP (vasopressin)	Rat	GD2061-OP
VP (vasopressin)	Rat	GD2058-OP
VP (vasopressin)	Rat	GD2060-OP
VP (vasopressin)	Rat	GD2059-OP


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GeneDetect[®] Oligonucleotide Gene Probes	www.GeneDetect.com
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Steroids

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect[®] Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
3-beta-HSD (hydroxysteroid dehydrogenase)	Rat	GD2068-OP
5-alpha reductase 1	Human	GD2069-OP
5-alpha reductase 2	Human	GD2070-OP
cortisol receptor	Fish	GD2071-OP
ER (estrogen receptor)	Rat, Mouse	GD2072-OP
ER (estrogen receptor)	Human	GD2073-OP
ER-alpha (estrogen receptor-alpha)	Rat, Mouse, Cow, Sheep	GD2074-OP
ER-alpha (estrogen receptor-alpha)	Human	GD2075-OP
ER-beta (estrogen receptor-beta)	Human	GD2079-OP
ER-beta (estrogen receptor-beta)	Quail	GD2078-OP
ER-beta (estrogen receptor-beta)	Quail	GD2077-OP
ER-beta (estrogen receptor-beta)	Quail	GD2076-OP
estradiol receptor	Sheep	GD2080-OP
GR (glucocorticoid receptor)	Rat, Mouse	GD2081-OP
MR (mineralocorticoid receptor)	Rat, Monkey, Human	GD2083-OP
MR (mineralocorticoid receptor)	Rat	GD2082-OP
progesterone receptor	Sheep	GD2084-OP
progesterone receptor	Monkey, Marmoset, Human	GD2085-OP

Endocrinology Other

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect[®] Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
IAPP (islet amyloid polypeptide)	Rat, Mouse	GD1977-OP
PP (pancreatic polypeptide)	Rat	GD1975-OP
PP (pancreatic polypeptide)	Rat	GD1976-OP
PYY (peptide YY)	Rat	GD1974-OP
SVS II (seminal vesicle secretion protein II)	Rat	GD1978-OP



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Growth Factors & Cytokines (Growth Factors, Neurotrophins, Cytokines)

Growth Factors

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<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
aFGF (acidic fibroblast growth factor)	Human	GD1200-OP
bek (fibroblast growth factor receptor)	Rat, Mouse, Human, Rabbit, Newt, Chicken	GD1202-OP
bFGF (basic fibroblast growth factor)	Human	GD1206-OP
bFGF (basic fibroblast growth factor)	Human	GD1204-OP
bFGF (basic fibroblast growth factor)	Sheep, Zebu	GD1205-OP
bFGF (basic fibroblast growth factor)	Human	GD1203-OP
bFGF (basic fibroblast growth factor), FGF-2 (fibroblast growth factor 2)	Zebu, Sheep, Deer	GD1207-OP
BMP-4 (bone morphogenetic protein 4)	Mouse	GD1208-OP
BMP-5 (bone morphogenetic protein 5)	Mouse	GD1209-OP
BMP-6 (bone morphogenetic protein 6)	Mouse	GD1210-OP
CNTF (ciliary neurotrophic factor)	Rat	GD1211-OP
EGF (epidermal growth factor)	Rat	GD1212-OP
EGF-R (epidermal growth factor receptor)	Human	GD1214-OP
EGF-R (epidermal growth factor receptor)	Rabbit, Human	GD1213-OP
EGF-R aberrant (epidermal growth factor receptor)	Human	GD1215-OP
FGF-2 (fibroblast growth factor 2)	Rat	GD1217-OP
FGF-2 (fibroblast growth factor 2)	Rat	GD1216-OP
FGF-beta (fibroblast growth factor-beta)	Sheep, Cow	GD1218-OP
FGF-R1 (fibroblast growth factor receptor 1)	Human	GD1219-OP
flg (fibroblast growth factor receptor)	Human	GD1220-OP
follistatin	Rat	GD1221-OP
GDF-1 (growth/differentiation factor 1)	Mouse	GD1222-OP
GDF-10 (growth/differentiation factor 10)	Mouse	GD1223-OP
GGF-2 (glial growth factor 2)	Human	GD1224-OP
HBNF (heparin binding neurite promoting factor)	Rat	GD1226-OP
HBNF (heparin binding neurite promoting factor)	Rat	GD1225-OP
HGF (hepatocyte growth factor)	Cow, Human	GD1229-OP
HGF (hepatocyte growth factor)	Human	GD1228-OP
HGF (hepatocyte growth factor)	Human	GD1227-OP
IGF-I (insulin-like growth factor I)	Rat	GD1232-OP
IGF-I (insulin-like growth factor I)	Sheep, Goat	GD1231-OP
IGF-I (insulin-like growth factor I)	Rat	GD1230-OP
IGF-II (insulin-like growth factor II)	Rat	GD1237-OP



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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
IGF-II (insulin-like growth factor II)	Sheep, Cow	GD1238-OP
IGF-II allele (insulin-like growth factor II, allele specific)	Human	GD1239-OP
IGF-I-R (insulin-like growth factor I receptor)	Rat, Mouse	GD1236-OP
IGF-I-R (insulin-like growth factor I receptor)	Rat, Mouse	GD1233-OP
IGF-I-R (insulin-like growth factor I receptor)	Rat	GD1234-OP
IGF-I-R (insulin-like growth factor I receptor)	Human	GD1235-OP
LDGF (leiomyoma derived growth factor)	Human	GD1240-OP
MK (midkine)	Mouse	GD1242-OP
MK (midkine)	Mouse	GD1241-OP
osteogenic protein-1 (also termed BMP-7 (bone morphogenetic protein 7))	Mouse	GD1244-OP
osteogenic protein-1 (also termed BMP-7 (bone morphogenetic protein 7))	Mouse	GD1243-OP
PDGF-A (platelet derived growth factor A)	Rat	GD1245-OP
PDGF-A (platelet-derived growth factor A)	Rat, Mouse	GD1246-OP
PDGF-A (platelet-derived growth factor A)	Human	GD1247-OP
PDGF-B (platelet-derived growth factor B)	Sheep, Cat, Human	GD1248-OP
ret protooncogene	Human	GD1249-OP
TGF-beta (transforming growth factor beta)	Human	GD1251-OP
TGF-beta (transforming growth factor beta)	Human	GD1250-OP
TGF-beta (transforming growth factor beta)	Rabbit, Hamster, Monkey, Human	GD1252-OP
TGF-beta (transforming growth factor beta)	Monkey, Human	GD1253-OP
TGF-beta-1 (transforming growth factor beta-1)	Rat, Mouse, Human, Guinea Pig, Hamster, Monkey	GD1254-OP
TGF-beta-1 (transforming growth factor beta-1)	Rat, Mouse, Human, Guinea Pig, Hamster, Monkey	GD1256-OP
TGF-beta-1 (transforming growth factor beta-1)	Pig, Sheep, Cow	GD1257-OP
TGF-beta-1 (transforming growth factor beta-1)	Horse, Pig, Sheep, Dog, Cow, Human	GD1255-OP
TGF-beta-2 (transforming growth factor beta-2)	Chicken	GD1258-OP

Neurotrophins

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect® Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
BDNF (brain-derived neurotrophic factor)	Mouse	GD1259-OP
BDNF (brain derived neurotrophic factor)	Cat, Bear	GD1201-OP
NGF (nerve growth factor)	Human	GD1260-OP
NGF (nerve growth factor)	Rat, Mouse	GD1261-OP
NT-3 (neurotrophin 3)	Rat	GD1262-OP



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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
NT-3 (neurotrophin 3)	Monkey, Human	GD1263-OP
p75NTR (p75 low affinity nerve growth factor receptor)	Rat	GD1264-OP
p75NTR (p75 low affinity neurotrophin receptor)	Rat	GD1266-OP
p75NTR (p75 low affinity neurotrophin receptor)	Human	GD1267-OP
p75NTR (p75 low affinity neurotrophin receptor)	Rat	GD1265-OP
trk (tyrosine kinase receptor)	Human	GD1268-OP
trk (tyrosine kinase receptor)	Rat	GD1269-OP
trkA (tyrosine kinase receptor A)	Human	GD1271-OP
trkA (tyrosine kinase receptor A)	Rat	GD1270-OP
trkB (tyrosine kinase receptor B)	Rat	GD1272-OP
trkB (tyrosine kinase receptor B)	Rat	GD1273-OP
trkB (tyrosine kinase receptor B)	Rat	GD1274-OP
trkB (tyrosine kinase receptor B)	Mouse	GD1278-OP
trkB (tyrosine kinase receptor B)	Rat	GD1275-OP
trkB (tyrosine kinase receptor B)	Chicken	GD1277-OP
trkB (tyrosine kinase receptor B)	Rat	GD1276-OP
trkC (tyrosine kinase receptor C)	Rat	GD1279-OP
trkC (tyrosine kinase receptor C)	Rat	GD1280-OP
trkC (tyrosine kinase receptor C)	Rat	GD1281-OP
trkC (tyrosine kinase receptor C)	Rat	GD1282-OP
trkC (tyrosine kinase receptor C)	Rat	GD1283-OP
trkC (tyrosine kinase receptor C)	Chicken	GD1284-OP
trkC (tyrosine kinase receptor C)	Mouse	GD1285-OP
trkC (tyrosine kinase receptor C)	Rat, Mouse	GD1286-OP

Cytokines

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect® Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
cytolysin	Mouse	GD2375-OP
cytolysin	Mouse	GD2379-OP
cytolysin	Mouse	GD2380-OP
cytolysin	Rat	GD2374-OP
cytolysin	Rat	GD2378-OP
cytolysin	Rat	GD2376-OP
cytolysin	Rat	GD2377-OP
cytolysin	Rat	GD2122-OP
IFN-gamma (interferon-gamma)	Human	GD1102-OP
IFN-gamma (interferon-gamma)	Rat	GD1101-OP
IFN-gamma (interferon-gamma)	Rat	GD1097-OP
IFN-gamma (interferon-gamma)	Rat	GD1093-OP
IFN-gamma (interferon-gamma)	Rat	GD1095-OP
IFN-gamma (interferon-gamma)	Human	GD1094-OP



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IFN-gamma (interferon-gamma)	Human, Gorilla, Chimpanzee, Monkey, Orangutan	GD1096-OP
IFN-gamma (interferon-gamma)	Human, Gorilla, Orangutan, Monkey	GD1098-OP
IFN-gamma (interferon-gamma)	Gorilla, Human	GD1099-OP
IFN-gamma (interferon-gamma)	Human	GD1100-OP
IL-10 (interleukin 10)	Human	GD1117-OP
IL-10 (interleukin 10)	Mouse	GD1118-OP
IL-10 (interleukin 10)	Mouse	GD1116-OP
IL-10 (interleukin 10)	Mouse, Guinea Pig	GD1123-OP
IL-10 (interleukin 10)	Human	GD1119-OP
IL-10 (interleukin 10)	Human	GD1120-OP
IL-10 (interleukin 10)	Human	GD1122-OP
IL-10 (interleukin 10)	Human	GD1115-OP
IL-10 (interleukin 10)	Mouse	GD1124-OP
IL-10 (interleukin 10)	Mouse	GD1125-OP
IL-10 (interleukin 10)	Human	GD1121-OP
IL-12 (interleukin 12)	Virus	GD1128-OP
IL-12 (interleukin 12)	Mouse	GD1129-OP
IL-12 (interleukin 12)	Mouse	GD1127-OP
IL-12 (interleukin 12)	Woodchuck, Human	GD1126-OP
IL-12 P35 (interleukin 12 P35 subunit)	Mouse	GD1130-OP
IL-1-beta (interleukin 1-beta)	Rat	GD1103-OP
IL-1-beta (interleukin 1-beta)	Rat	GD1107-OP
IL-1-beta (interleukin 1-beta)	Rat	GD1106-OP
IL-1-beta (interleukin 1-beta)	Rat	GD1105-OP
IL-1-beta (interleukin 1-beta)	Human	GD1104-OP
IL-1-beta (interleukin 1-beta)	Rat	GD1108-OP
IL-1-beta (interleukin 1-beta)	Rat	GD1113-OP
IL-1-beta (interleukin 1-beta)	Rat	GD1112-OP
IL-1-beta (interleukin 1-beta)	Rat, Mouse	GD1111-OP
IL-1-beta (interleukin 1-beta)	Rat	GD1110-OP
IL-1-beta (interleukin 1-beta)	Human	GD1109-OP
IL-1-R antagonist (interleukin 1 receptor antagonist)	Human	GD1114-OP
IL-2 (interleukin 2)	Rat, Mouse	GD1138-OP
IL-2 (interleukin 2)	Mouse	GD1132-OP
IL-2 (interleukin 2)	Baboon, Monkey, Human	GD1137-OP
IL-2 (interleukin 2)	Baboon, Monkey, Human	GD1135-OP
IL-2 (interleukin 2)	Baboon, Monkey, Human	GD1136-OP
IL-2 (interleukin 2)	Baboon, Monkey, Human	GD1139-OP
IL-2 (interleukin 2)	Monkey, Human	GD1140-OP


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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
IL-2 (interleukin 2)	Baboon, Monkey, Human	GD1131-OP
IL-2 (interleukin 2)	Monkey, Baboon, Human	GD1134-OP
IL-2 (interleukin 2)	Monkey, Human	GD1133-OP
IL-4 (interleukin 4)	Rat	GD1143-OP
IL-4 (interleukin 4)	Rat	GD1141-OP
IL-4 (interleukin 4)	Rat	GD1147-OP
IL-4 (interleukin 4)	Rat	GD1145-OP
IL-4 (interleukin 4)	Monkey, Human	GD1146-OP
IL-4 (interleukin 4)	Monkey, Human	GD1142-OP
IL-4 (interleukin 4)	Human	GD1144-OP
IL-4 (interleukin 4)	Monkey, Human	GD1148-OP
IL-6 (interleukin 6)	Monkey, Human	GD1152-OP
IL-6 (interleukin 6)	Human	GD1150-OP
IL-6 (interleukin 6)	Monkey, Human	GD1151-OP
IL-6 (interleukin 6)	Rat	GD1155-OP
IL-6 (interleukin 6)	Rat	GD1154-OP
IL-6 (interleukin 6)	Human	GD1158-OP
IL-6 (interleukin 6)	Monkey, Human	GD1159-OP
IL-6 (interleukin 6)	Monkey, Human	GD1156-OP
IL-6 (interleukin 6)	Human	GD1157-OP
IL-6 (interleukin 6)	Monkey, Human	GD1153-OP
IL-6 (interleukin 6)	Monkey, Human	GD1149-OP
IL-6 (interleukin 6) (bp53-100)	Monkey, Human	GD1160-OP
IL-6 (interleukin 6) (bp559-606)	Human	GD1161-OP
IL-6 (interleukin 6) (bp634-681)	Monkey, Human	GD1162-OP
LT (lymphotoxin)	Rat, Mouse, Human	GD1163-OP
LT (lymphotoxin), TNF-beta (tumor necrosis factor beta)	Human	GD1164-OP
LT (lymphotoxin), TNF-beta (tumor necrosis factor beta)	Human	GD1165-OP
MCP1 (monocyte chemotactic protein 1)	Rat	GD1167-OP
MCP1 (monocyte chemotactic protein 1)	Rat	GD1166-OP
MIP1-alpha (macrophage inflammatory protein 1-alpha)	Rat	GD1170-OP
MIP1-alpha (macrophage inflammatory protein 1-alpha)	Rat, Mouse	GD1168-OP
MIP1-alpha (macrophage inflammatory protein 1-alpha)	Rat	GD1169-OP
MIP2 (macrophage inflammatory protein 2)	Rat	GD1171-OP
MIP2 (macrophage inflammatory protein 2)	Rat, Mouse	GD1172-OP
MIP2 (macrophage inflammatory protein 2)	Rat	GD1173-OP
RANTES (regulated on activation, normal T-expressed and secreted)	Rat	GD1176-OP
RANTES (regulated on activation, normal T-expressed and secreted)	Rat, Mouse	GD1175-OP
RANTES (regulated on activation, normal T-expressed and secreted)	Rat	GD1174-OP
TNF-alpha (tumor necrosis factor alpha)	Human	GD1177-OP
TNF-alpha (tumor necrosis factor alpha)	Human	GD1178-OP
TNF-alpha (tumor necrosis factor alpha)	Bacteria	GD1185-OP


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TNF-alpha (tumor necrosis factor alpha)	Bacteria	GD1192-OP
TNF-alpha (tumor necrosis factor alpha)	Bacteria	GD1191-OP
TNF-alpha (tumor necrosis factor alpha)	Bacteria	GD1179-OP
TNF-alpha (tumor necrosis factor alpha)	Human	GD1186-OP
TNF-alpha (tumor necrosis factor alpha)	Monkey, Human	GD1181-OP
TNF-alpha (tumor necrosis factor alpha)	Monkey, Baboon, Human	GD1193-OP
TNF-alpha (tumor necrosis factor alpha)	Rat	GD1183-OP
TNF-alpha (tumor necrosis factor alpha)	Rat	GD1182-OP
TNF-alpha (tumor necrosis factor alpha)	Rat, Mouse	GD1190-OP
TNF-alpha (tumor necrosis factor alpha)	Rat	GD1184-OP
TNF-alpha (tumor necrosis factor alpha)	Human	GD1187-OP
TNF-alpha (tumor necrosis factor alpha)	Human	GD1188-OP
TNF-alpha (tumor necrosis factor alpha)	Human	GD1189-OP
TNF-alpha (tumor necrosis factor alpha)	Human	GD1180-OP
TNF-beta (tumor necrosis factor beta)	Mouse	GD1194-OP
TNF-beta (tumor necrosis factor beta)	Mouse	GD1195-OP
TNF-beta (tumor necrosis factor beta)	Mouse	GD1196-OP
TNF-beta (tumor necrosis factor beta)	Mouse	GD1197-OP
TNF-beta (tumor necrosis factor beta), LT (lymphotoxin)	Human	GD1198-OP
TNF-beta (tumor necrosis factor beta), LT (lymphotoxin)	Human	GD1199-OP

GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
Microbiology (Bacteria & Archaea, Viruses, Other Organisms)		
<u>Bacteria & Archaea</u>		
<p>Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the <i>GeneDetect® Custom Probe Design &/or Synthesis</i> Section of this Catalog.</p>		
<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
Achromatium 16S rRNA	Bacteria	GD2342-OP
Achromatium 16S rRNA	Bacteria	GD2348-OP
Achromatium 16S rRNA	Bacteria	GD2344-OP
Achromatium 16S rRNA	Bacteria	GD2343-OP
Achromatium 16S rRNA	Bacteria	GD2347-OP
Achromatium 16S rRNA	Bacteria	GD2345-OP
Achromatium 16S rRNA	Bacteria	GD2346-OP
Achromatium oxaliferum 16S rRNA (AFK192)	Bacteria	GD2349-OP
Achromatium oxaliferum 16S rRNA (AFK433)	Bacteria	GD2350-OP
Achromatium oxaliferum 16S rRNA (AST192)	Bacteria	GD2351-OP
Achromatium oxaliferum 16S rRNA (AST433)	Bacteria	GD2352-OP



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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
Acinetobacter spp.	Bacteria	GD2353-OP
Acinetobacteria spp. 16S rRNA (ACA)	Bacteria	GD2354-OP
Aeromonas hydrophilia, Aeromonas media, Aeromonas enteropelogenes, Aeromonas caviae and Aeromonas trota 16S rRNA (AMH8b)	Bacteria	GD2355-OP
Aeromonas spp. 16S rRNA (AER66)	Bacteria	GD2356-OP
Aeromonas spp. 23S rRNA (AMH63b)	Bacteria	GD2357-OP
Amaricoccus rRNA	Bacteria	GD2358-OP
Amoebobacter purpureus 16S rRNA	Bacteria	GD2359-OP
Archaea 16S rRNA	Archaea	GD2520-OP
Bacterioides distasonis 16S rRNA	Bacteria	GD2360-OP
Bacteroides fragilis 16S rRNA	Bacteria	GD2361-OP
Bacteroides spp. & Prevotella spp. 16S rRNA (BAC303)	Bacteria	GD2362-OP
Beggiatoa spp. 16S rRNA	Bacteria	GD2363-OP
Bifidobacterium spp. 16S rRNA (BIF164)	Bacteria	GD2364-OP
Brachyspira/Serpulina rRNA	Bacteria	GD2365-OP
Brachyspira/Serpulina pilosicoli rRNA	Bacteria	GD2366-OP
Brevundimonas diminuta rRNA (S-S-B.dim-0023-a-A-18)	Bacteria	GD2367-OP
Burkholderia cepacia 16S rRNA	Bacteria	GD2368-OP
Burkholderia spp. 16S rRNA	Bacteria	GD2369-OP
Chromatium okenii 16S rRNA	Bacteria	GD2370-OP
Chromatium vinosum 16S rRNA	Bacteria	GD2371-OP
Clostridium histolyticum 16S rRNA	Bacteria	GD2372-OP
Clostridium lituseburense 16S rRNA	Bacteria	GD2373-OP
Cytophaga/Flavobacterium 16S rRNA	Bacteria	GD2381-OP
Desulfobacter Proteobacteria-delta rRNA (S-* -Dsb-0804-a-A-18)	Bacteria	GD2382-OP
Desulfovibrionaceae rRNA (S-F-Dsv-0687-a-A-16)	Bacteria	GD2383-OP
Enterobacteriaceae 16S rRNA	Bacteria	GD2384-OP
Enterococcus faecalis & Enterococcus sulfuricus 16S rRNA	Bacteria	GD2385-OP
Enterococcus faecalis 23S rRNA	Bacteria	GD2386-OP
Enterococcus spp. 23S rRNA	Bacteria	GD2387-OP
Escherichia coli	Bacteria	GD2389-OP
Escherichia coli	Bacteria	GD2388-OP
Escherichia coli 16S rRNA	Bacteria	GD2390-OP
Escherichia coli 16S rRNA	Bacteria	GD2393-OP
Escherichia coli 16S rRNA	Bacteria	GD2392-OP
Escherichia coli 16S rRNA	Bacteria	GD2395-OP
Escherichia coli 16S rRNA	Bacteria	GD2391-OP
Escherichia coli 16S rRNA	Bacteria	GD2394-OP
Escherichia coli V2 16S rRNA	Bacteria	GD2396-OP
Escherichia coli V8 16S rRNA	Bacteria	GD2397-OP
Eubacterium barkeri 16S rRNA	Bacteria	GD2398-OP
Eubacterium bifforme 16S rRNA	Bacteria	GD2399-OP
Eubacterium contortum 16S rRNA	Bacteria	GD2400-OP
Eubacterium cylindroides 16S rRNA	Bacteria	GD2402-OP
Eubacterium cylindroides 16S rRNA	Bacteria	GD2401-OP
Eubacterium dolichum 16S rRNA	Bacteria	GD2403-OP


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Eubacterium hadrum 16S rRNA	Bacteria	GD2404-OP
Eubacterium lentum 16S rRNA	Bacteria	GD2405-OP
Eubacterium limosum 16S rRNA	Bacteria	GD2406-OP
Eubacterium moniliforme 16S rRNA	Bacteria	GD2407-OP
Eubacterium ventriosum 16S rRNA	Bacteria	GD2408-OP
Fibrobacter succinogenes rRNA (S-Ss-F.s.suc-0628-a-A-22)	Bacteria	GD2409-OP
Fibrobacter succinogenes rRNA (S-Ss-F.suc(2)-0628-a-A-22)	Bacteria	GD2410-OP
Firmicutes LGC 16S rRNA (Firmicutes with low DNA G+C content) (LGC354b)	Bacteria	GD2411-OP
GPB-HGC 16S rRNA (Gram-positive bacteria with high DNA G+C content)	Bacteria	GD2412-OP
GPB-LGC 16S rRNA (Gram-positive bacteria with low DNA G+C content)	Bacteria	GD2413-OP
GPB-LGC 16S rRNA (Gram-positive bacteria with low DNA G+C content)	Bacteria	GD2414-OP
Haemophilus influenzae 16S rRNA	Bacteria	GD2415-OP
Helicobacter pylori 16S rRNA	Bacteria	GD2416-OP
Helicobacter pylori 16S rRNA Hpy-1	Bacteria	GD2417-OP
Helicobacter pylori clarithromycin resistant 23S rRNA	Bacteria	GD2418-OP
Helicobacter pylori clarithromycin resistant 23S rRNA	Bacteria	GD2420-OP
Helicobacter pylori clarithromycin resistant 23S rRNA	Bacteria	GD2419-OP
Helicobacter pylori clarithromycin sensitive 23S rRNA	Bacteria	GD2421-OP
Klebsiella pneumoniae 23S rRNA	Bacteria	GD2422-OP
Lactobacillus 16S rRNA	Bacteria	GD2423-OP
Lamprocystis roseopersicina 16S rRNA	Bacteria	GD2424-OP
Legionella pneumophila 16S Rrna	Bacteria	GD2426-OP
Legionella pneumophila 16S rRNA	Bacteria	GD2425-OP
Legionella pneumophila V2 16S rRNA	Bacteria	GD2427-OP
Legionella pneumophila V8 16S rRNA	Bacteria	GD2428-OP
Leptothrix spp 16S rRNA	Bacteria	GD2429-OP
Methanosaeta concilii 16S rRNA	Bacteria	GD2434-OP
Methanosaeta concilii 16S rRNA	Bacteria	GD2431-OP
Methanosaeta concilii 16S rRNA	Bacteria	GD2430-OP
Methanosaeta concilii 16S rRNA	Bacteria	GD2432-OP
Methanosaeta concilii 16S rRNA	Bacteria	GD2433-OP
Methanosarcina barkeri 16S rRNA	Bacteria	GD2438-OP
Methanosarcina barkeri 16S rRNA	Bacteria	GD2437-OP
Methanosarcina barkeri 16S rRNA	Bacteria	GD2436-OP
Methanosarcina barkeri 16S rRNA	Bacteria	GD2435-OP
Nitrobacter spp. 16S rRNA	Bacteria	GD2441-OP
Nitrobacter spp. 16S rRNA	Bacteria	GD2439-OP
Nitrobacter spp. 16S rRNA	Bacteria	GD2440-OP
Nitrobacter spp. 16S rRNA competitor	Bacteria	GD2442-OP
Nitrosococcus mobilis 16S rRNA	Bacteria	GD2443-OP
Nitrosolobus multiformis, Nitrospira briensis, & Nitrosovibrio tenuis 16S rRNA	Bacteria	GD2444-OP
Nitrosomonas 16S rRNA	Bacteria	GD2445-OP


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Nitrosomonas 16S rRNA NEU competitor	Bacteria	GD2446-OP
Nitrosomonas C-56, Nitrosomonas europaea, Nitrosomonas eutropha, & Nitrosococcus mobilis 16S rRNA	Bacteria	GD2447-OP
Nitrospira moscoviensis & Nitrospira marina 16S rRNA	Bacteria	GD2448-OP
Nitrospira moscoviensis 16S rRNA	Bacteria	GD2449-OP
Nitrospira moscoviensis 16S rRNA	Bacteria	GD2450-OP
Nitrospira spp. 16S rRNA	Bacteria	GD2452-OP
Nitrospira spp. 16S rRNA	Bacteria	GD2453-OP
Nitrospira spp. 16S rRNA	Bacteria	GD2451-OP
Planctomyceta 16S rRNA (PLA46)	Bacteria	GD2454-OP
Planctomycetales 16S rRNA (PLA886)	Bacteria	GD2455-OP
Proteobacteria-alpha 16S rRNA (ALF1b)	Bacteria	GD2456-OP
Proteobacteria-alpha 16S rRNA (ALF968)	Bacteria	GD2457-OP
Proteobacteria-beta	Bacteria	GD2458-OP
Proteobacteria-beta 16S rRNA	Bacteria	GD2463-OP
Proteobacteria-beta 16S rRNA	Bacteria	GD2467-OP
Proteobacteria-beta 16S rRNA	Bacteria	GD2465-OP
Proteobacteria-beta 16S rRNA	Bacteria	GD2468-OP
Proteobacteria-beta 16S rRNA	Bacteria	GD2466-OP
Proteobacteria-beta 16S rRNA	Bacteria	GD2464-OP
Proteobacteria-beta 16S rRNA	Bacteria	GD2462-OP
Proteobacteria-beta 16S rRNA	Bacteria	GD2461-OP
Proteobacteria-beta 16S rRNA	Bacteria	GD2460-OP
Proteobacteria-beta 16S rRNA	Bacteria	GD2459-OP
Proteobacteria-beta 16S rRNA (BET42a)	Bacteria	GD2469-OP
Proteobacteria-beta 23S rRNA (BET42a)	Bacteria	GD2472-OP
Proteobacteria-beta 23S rRNA (BET42a)	Bacteria	GD2470-OP
Proteobacteria-beta 23S rRNA (BET42a)	Bacteria	GD2471-OP
Proteobacteria-beta ammonia-oxidizing 16S rRNA	Bacteria	GD2473-OP
Proteobacteria-beta ammonia-oxidizing 16S rRNA	Bacteria	GD2474-OP
Proteobacteria-delta 16S rRNA (SRB385)	Bacteria	GD2475-OP
Proteobacteria-gamma	Bacteria	GD2476-OP
Proteobacteria-gamma (GAM42a)	Bacteria	GD2478-OP
Proteobacteria-gamma (GAM42a)	Bacteria	GD2477-OP
Proteobacteria-gamma 23S rRNA	Bacteria	GD2479-OP
Proteobacteria-gamma 23S rRNA (GAM42a)	Bacteria	GD2481-OP
Proteobacteria-gamma 23S rRNA (GAM42a)	Bacteria	GD2480-OP
Pseudomonas aeruginosa 16S rRNA	Bacteria	GD2482-OP
Pseudomonas aeruginosa 16S rRNA	Bacteria	GD2483-OP
Pseudomonas aeruginosa 23S rRNA	Bacteria	GD2484-OP
Pseudomonas aeruginosa V2 16S rRNA	Bacteria	GD2485-OP
Pseudomonas aeruginosa V8 16S rRNA	Bacteria	GD2486-OP
Pseudomonas putida & Pseudomonas mendocina 23S rRNA (Ppu)	Bacteria	GD2487-OP
Pseudomonas spp. 23S rRNA (Ps)	Bacteria	GD2488-OP
Salmonella 23S rRNA	Bacteria	GD2489-OP
spiroplasma-Proteobacteria	Bacteria	GD2490-OP


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Staphylococcus aureus 16S rRNA	Bacteria	GD2492-OP
Staphylococcus aureus 16S rRNA	Bacteria	GD2491-OP
Staphylococcus coagulase-negative 16S rRNA	Bacteria	GD2493-OP
Staphylococcus spp. 16S rRNA	Bacteria	GD2494-OP
Stenotrophomonas maltophilia 16S rRNA	Bacteria	GD2495-OP
Streptococcus agalactiae 16S rRNA	Bacteria	GD2496-OP
Streptococcus pneumoniae 16S rRNA	Bacteria	GD2497-OP
Streptococcus pyogenes 16S rRNA	Bacteria	GD2498-OP
Streptococcus pyogenes 16S rRNA	Bacteria	GD2499-OP
Streptococcus spp. 16S rRNA	Bacteria	GD2501-OP
Streptococcus spp. 16S rRNA	Bacteria	GD2500-OP
SW5 Psychrobacter/Moraxella 16S rRNA	Bacteria	GD2502-OP
Thioplaca spp. 16S rRNA	Bacteria	GD2503-OP
Treponema denticola 16S rRNA	Bacteria	GD2504-OP
Treponema maltophilum 16S rRNA	Bacteria	GD2505-OP
Treponema phagedenis 16S rRNA	Bacteria	GD2506-OP
Treponema vincentii 16S rRNA	Bacteria	GD2507-OP
universal Archaea probe 16S rRNA (ARCH915)	Bacteria	GD2508-OP
universal Bacillus probe	Bacteria	GD2510-OP
universal Bacillus probe	Bacteria	GD2509-OP
universal Bacteria probe 16S rRNA (EUB338)	Bacteria	GD2512-OP
universal Bacteria probe 16S rRNA (EUB338)	Bacteria	GD2511-OP
universal mesophilic methanogens	Bacteria	GD2513-OP
universal non-bacteria probe 16s rRNA (NON338)	Bacteria	GD2514-OP
Xanthomonas 16S rRNA (XAN818)	Bacteria	GD2515-OP
Yersinia enterocolitica 16S rRNA	Bacteria	GD2516-OP
Yersinia pestis & Yersinia pseudotuberculosis 16S rRNA	Bacteria	GD2517-OP

Viruses

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect® Custom Probe Design &/or Synthesis* Section of this Catalog.

Product Name	Species	Product Code
CMV (cytomegalovirus)	Virus	GD2538-OP
EBER1 (Epstein Barr virus (EBV) encoded small RNA 1)	Virus	GD2544-OP
EBER1 (Epstein Barr virus (EBV) encoded small RNA 1)	Virus	GD2539-OP
EBER1 (Epstein Barr virus (EBV) encoded small RNA 1)	Virus	GD2543-OP
EBER1 (Epstein Barr virus (EBV) encoded small RNA 1)	Virus	GD2542-OP
EBER1 (Epstein Barr virus (EBV) encoded small RNA 1)	Virus	GD2541-OP
EBER1 (Epstein Barr virus (EBV) encoded small RNA 1)	Virus	GD2540-OP
EBER1 (Epstein-Barr virus-encoded RNA)	Virus	GD2545-OP
EBER2 (Epstein Barr virus (EBV) encoded small RNA 2)	Virus	GD2546-OP
EBV (Epstein Barr virus)	Virus	GD2549-OP



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EBV (Epstein Barr virus)	Virus	GD2548-OP
EBV (Epstein Barr virus)	Virus	GD2547-OP
EBV LMP1 (Epstein Barr virus latent membrane protein 1)	Virus	GD2550-OP
HAV (hepatitis A virus)	Virus	GD2553-OP
HAV (hepatitis A virus)	Virus	GD2552-OP
HAV (hepatitis A virus)	Virus	GD2551-OP
HCMV-IE (cytomegalovirus immediate early gene)	Virus	GD2554-OP
HCMV-IE (cytomegalovirus immediate early gene)	Virus	GD2556-OP
HCMV-IE (cytomegalovirus immediate early gene)	Virus	GD2557-OP
HCMV-IE (cytomegalovirus immediate early gene)	Virus	GD2558-OP
HCMV-IE (cytomegalovirus immediate early gene)	Virus	GD2559-OP
HCMV-IE (cytomegalovirus immediate early gene)	Virus	GD2560-OP
HCMV-IE (cytomegalovirus immediate early gene)	Virus	GD2555-OP
HCV (hepatitis C virus)	Virus	GD2561-OP
HCV (hepatitis C virus)	Virus	GD2565-OP
HCV (hepatitis C virus)	Virus	GD2564-OP
HCV (hepatitis C virus)	Virus	GD2563-OP
HCV (hepatitis C virus)	Virus	GD2562-OP
HCV (hepatitis C virus)	Virus	GD2566-OP
HIV-1 (human immunodeficiency virus type 1)	Virus	GD2567-OP
HIV-1 (human immunodeficiency virus type 1)	Virus	GD2569-OP
HIV-1 (human immunodeficiency virus type 1)	Virus	GD2568-OP
HPV E6/E7 (human papillomavirus E6/E7 gene)	Virus	GD2571-OP
HPV E6/E7 (human papillomavirus E6/E7 gene)	Virus	GD2573-OP
HPV E6/E7 (human papillomavirus E6/E7 gene)	Virus	GD2570-OP
HPV E6/E7 (human papillomavirus E6/E7 gene)	Virus	GD2572-OP
HPV-6 (human papillomavirus 6)	Virus	GD2575-OP
HPV-6 (human papillomavirus 6)	Virus	GD2574-OP
HRV (human rhinovirus)	Virus	GD2576-OP
HSV (herpes simplex virus)	Virus	GD2577-OP
HTLV-1 (human T-cell lymphotropic virus type 1)	Virus	GD2578-OP
HTLV-I (human T-lymphotropic virus type I)	Virus	GD2579-OP
HVP (herpes virus papio)	Virus	GD2580-OP
measles virus N (MVN)	Virus	GD2581-OP
measles virus N (MVN)	Virus	GD2582-OP
PMV (papillomavirus)	Virus	GD2584-OP
PMV (papillomavirus)	Virus	GD2585-OP
PMV (papillomavirus)	Virus	GD2586-OP
PMV (papillomavirus)	Virus	GD2587-OP
PMV (papillomavirus)	Virus	GD2588-OP
PMV (papillomavirus)	Virus	GD2589-OP
PMV (papillomavirus)	Virus	GD2590-OP
PMV (papillomavirus)	Virus	GD2591-OP
PMV (papillomavirus)	Virus	GD2597-OP
PMV (papillomavirus)	Virus	GD2592-OP
PMV (papillomavirus)	Virus	GD2583-OP
PMV (papillomavirus)	Virus	GD2594-OP


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PMV (papillomavirus)	Virus	GD2593-OP
PMV (papillomavirus)	Virus	GD2595-OP
PMV (papillomavirus)	Virus	GD2596-OP
SIV (simian immunodeficiency virus)	Virus	GD2598-OP
VZV (varicella-zoster virus)	Virus	GD2599-OP
<u>Other</u>		
<p>Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the <i>GeneDetect® Custom Probe Design &/or Synthesis</i> Section of this Catalog.</p>		
<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
Acanthamoeba	Amoeba	GD2518-OP
Acanthamoeba castellanii Neff 18S rRNA	Amoeba	GD2519-OP
Aureobasidium pullulans 18S rRNA	Fungi	GD2521-OP
Candida albicans & Candida tropicalis 18S rRNA	Fungi	GD2522-OP
Candida albicans 18S rRNA	Fungi	GD2523-OP
Candida glabrata 18S rRNA	Fungi	GD2524-OP
Candida krusei 18S rRNA	Fungi	GD2525-OP
Candida parapsilosis 18S rRNA	Fungi	GD2526-OP
Candida parapsilosis 18S rRNA	Fungi	GD2527-OP
Cryptosporidium parvum 18S rRNA (CRY1)	Protozoa	GD2528-OP
Plagiopyla nasuta 16S rRNA	Protozoa	GD2529-OP
SSU rRNA (small subunit ribosomal RNA)		GD2531-OP
SSU rRNA (small subunit ribosomal RNA)		GD2532-OP
SSU rRNA (small subunit ribosomal RNA)		GD2530-OP
universal all organisms probe 16S rRNA	All species	GD2533-OP
universal all organisms probe 16S rRNA	All species	GD2271-OP
universal all organisms probe rRNA (S-* -Univ-1528-a-A-15)	All species	GD2534-OP
universal Eucarya probe 16S rRNA	All eukaryotes	GD2535-OP
universal Eucarya probe 18S rRNA (EUK516)	All eukaryotes	GD2536-OP
universal yeast probe 18S rRNA	Yeast	GD2537-OP


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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com
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Miscellaneous

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect® Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
"-14" gene	Chicken	GD2086-OP
ACE pulmonary (angiotensin converting enzyme, pulmonary form)	Mouse	GD2087-OP
ACE testicular (angiotensin converting enzyme, testicular form)	Rabbit	GD2088-OP
ALAS (delta-aminolevulinate synthase)	Rat	GD2089-OP
albumin	Mouse	GD2093-OP
albumin	Mouse	GD2092-OP
albumin	Mouse	GD2091-OP
albumin	Rat	GD2094-OP
albumin	Human	GD2090-OP
angiotensinogen	Rat	GD2095-OP
apoD (apolipoprotein D)	Human	GD2096-OP
apoE (apolipoprotein E)	Rat, Mouse	GD2097-OP
apoJ (apolipoprotein J)	Rat	GD2098-OP
aromatase	Zebu	GD2099-OP
BCR exon 2/ABL exon 2	Human	GD2100-OP
BCR exon 3/ABL exon 2	Human	GD2101-OP
beta-1-lactoglobulin	Buffalo	GD2102-OP
beta-2-lactoglobulin	Cow	GD2103-OP
beta-3-lactoglobulin	Cow	GD2104-OP
beta-globin	Human, Monkey, Chimpanzee	GD2107-OP
beta-globin	Human, Orangutan, Baboon, Monkey	GD2106-OP
beta-globin	Human	GD2105-OP
beta-globin intron	Human, Gorilla	GD2108-OP
beta-globin intron	Human	GD2109-OP
beta-globin splice-junction	Human	GD2110-OP
beta-MHC (beta-myosin heavy chain)	Rat	GD2111-OP
C3 (complement 3)	Human	GD2112-OP
C9 (complement 9)	Human	GD2113-OP
cathepsin B	Human	GD2114-OP
CD4	Human, Chimpanzee	GD2115-OP
CSP (cysteine string protein)	Rat	GD2117-OP
CSP (cysteine string protein)	Rat	GD2116-OP
cyclophilin	Rat, Mouse	GD2119-OP
cyclophilin	Rat, Hamster	GD2118-OP



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cyclophilin	Rat	GD2120-OP
cystatin A	Human	GD2121-OP
EPO (erythropoietin)	Rat, Mouse	GD2125-OP
EPO (erythropoietin)	Mouse	GD2131-OP
EPO (erythropoietin)	Mouse	GD2124-OP
EPO (erythropoietin)	Mouse	GD2123-OP
EPO (erythropoietin)	Mouse	GD2130-OP
EPO (erythropoietin)	Mouse	GD2126-OP
EPO (erythropoietin)	Cow, Sheep	GD2129-OP
EPO (erythropoietin)	Sheep, Pig	GD2128-OP
EPO (erythropoietin)	Cow, Sheep	GD2127-OP
epsilon-globin	Human, Gorilla, Chimpanzee, Monkey	GD2132-OP
Fc-gamma-RIIa (Fc-gamma immunoglobulin G (IgG) receptor IIA, also called CD32)	Human	GD2133-OP
Fc-gamma-RIIb1 (Fc-gamma immunoglobulin G (IgG) receptor IIB1, also called CD32)	Human	GD2134-OP
Fc-gamma-RIIb2 (Fc-gamma region immunoglobulin G (IgG) receptor IIB2, also called CD32)	Human	GD2135-OP
FKBP-12 (FK binding protein 12)	Human	GD2138-OP
FKBP-12 (FK binding protein 12)	Human	GD2137-OP
FKBP-12 (FK binding protein 12)	Human	GD2136-OP
FXIII A (Factor XIII subunit A)	Human	GD2140-OP
FXIII A (Factor XIII subunit A)	Human	GD2139-OP
FXIII A (Factor XIII subunit A)	Human	GD2143-OP
FXIII A (Factor XIII subunit A)	Human	GD2141-OP
FXIII A (Factor XIII subunit A)	Human	GD2142-OP
gamma-globin	Chimpanzee, Monkey, Orangutan, Human	GD2145-OP
gamma-globin	Chimpanzee, Monkey, Orangutan, Gorilla, Human	GD2146-OP
gamma-globin	Monkey, Chimpanzee, Orangutan, Gorilla, Pig, Human	GD2144-OP
gamma-globin	Human, Chimpanzee, Gorilla	GD2147-OP
gamma-globin	Chimpanzee, Orangutan, Gorilla, Monkey, Human	GD2148-OP
gastrin	Human	GD2149-OP
gastrin	Rat	GD2150-OP
gastrin	Human	GD2151-OP
gastrin	Rat	GD2153-OP
gastrin	Rat	GD2152-OP
gp330 (also called megalin)	Rat	GD2154-OP
HDC (histidine decarboxylase)	Rat	GD2155-OP


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HDC (histidine decarboxylase)	Rat	GD2156-OP
Hel-N1 (Human Elav-like neuronal protein 1)	Human	GD2157-OP
HO-1 (heme oxygenase 1)	Rat, Mouse	GD2158-OP
HO-2 (heme oxygenase 2)	Rat	GD2159-OP
Hox 1.3 (homeobox gene 1.3)	Mouse	GD2160-OP
IFABP (intestinal-like fatty acid binding protein)	Fish	GD2161-OP
IgA1 (immunoglobulin A1)	Human	GD2162-OP
IgG1 (immunoglobulin G1)	Mouse, Human	GD2164-OP
IgG2 (immunoglobulin G2)	Human	GD2165-OP
IgG3 (immunoglobulin G3)	Human	GD2166-OP
IgG4 (immunoglobulin G4)	Human	GD2167-OP
IgG-gamma-H (immunoglobulin G-gamma heavy chain)	Rabbit	GD2163-OP
IgGV(H) (immunoglobulin G variable heavy chain)	Monkey, Human	GD2168-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2169-OP
IgV(H) (immunoglobulin heavy chain variable)	Human, Monkey	GD2172-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2171-OP
IgV(H) (immunoglobulin heavy chain variable)	Human, Monkey, Gorilla	GD2180-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2181-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2176-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2173-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2178-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2175-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2170-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2174-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2179-OP
IgV(H) (immunoglobulin heavy chain variable)	Human	GD2177-OP
La/SSB (La protein / Sjogren syndrome B antigen ribonucleoprotein complex)	Human	GD2182-OP
La/SSB (La protein / Sjogren syndrome B antigen ribonucleoprotein complex)	Human	GD2183-OP
La/SSB (La protein / Sjogren syndrome B antigen ribonucleoprotein complex)	Human	GD2185-OP
La/SSB (La protein / Sjogren syndrome B antigen ribonucleoprotein complex)	Human	GD2184-OP
lacZ	Bacteria	GD2186-OP
LDL-R (low density lipoprotein receptor)	Rat	GD2187-OP
LPH (lactase-phlorizin hydrolase)	Rat	GD2188-OP
LRP (low density lipoprotein receptor (LDLr)-related protein)	Human	GD2189-OP
megsin (mesangium (kidney)-predominant serine protease inhibitor (serpin) superfamily member)	Human	GD2190-OP
MHC (myosin heavy chain)	Rat	GD2191-OP
MLC-2v (myosin light chain 2 ventricular)	Rat	GD2192-OP
MPI (mucous proteinase inhibitor)	Human	GD2193-OP
MT-R1a (melatonin receptor 1a)	Human	GD2194-OP
MT-R1b (melatonin receptor 1b)	Rat	GD2195-OP
MUC1 (mucin 1)	Human	GD2196-OP


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MUC2 (mucin 2)	Human	GD2197-OP
MUC3 (mucin 3)	Human	GD2198-OP
MUC4 (mucin 4)	Human	GD2199-OP
MUC5AC (mucin 5AC gastric type)	Human	GD2200-OP
MUC5B (mucin 5B)	Human	GD2201-OP
MUC6 (mucin 6)	Human	GD2202-OP
MUC7 (mucin 7)	Human	GD2204-OP
MUC7 (mucin 7)	Human	GD2203-OP
MyBP-C cardiac (myosin binding protein C cardiac form)	Human	GD2206-OP
MyBP-C cardiac (myosin binding protein C cardiac form)	Mouse	GD2205-OP
opsin	Human	GD2207-OP
opsin	Monkey, Talapoin, Human	GD2208-OP
opsin	Gorilla, Chimpanzee, Dolphin, Human	GD2209-OP
PAI-1 (plasminogen activator inhibitor 1)	Cow, Pig, Human	GD2210-OP
PepT1 (H+/di-tripeptide transporter)	Rabbit	GD2211-OP
PepT1 (H+/di-tripeptide transporter)	Rabbit	GD2212-OP
perforin	Human	GD2213-OP
perforin	Human	GD2214-OP
preproANGEN (preproangiotensinogen)	Rat	GD2215-OP
preproANP (preproatrial matrietic peptide)	Rat	GD2217-OP
preproANP (preproatrial matrietic peptide)	Rat	GD2216-OP
preproANP (preproatrial natriuretic peptide)	Rat	GD2218-OP
preproCNP (preproC-type natriuretic peptide)	Rat, Mouse	GD2220-OP
preproCNP (preproC-type natriuretic peptide)	Rat	GD2219-OP
preSL1 (C.elegans-specific upstream short sequence trans-spliced RNA precursor)	Nematode	GD2221-OP
protamine 1	Rat, Mouse, Gazelle, Cow	GD2222-OP
Protein S	Human	GD2224-OP
Protein S	Rabbit, Human	GD2223-OP
PST (polysialyltransferase)	Mouse, Hamster	GD2225-OP
RAP (receptor associated protein)	Rat	GD2226-OP
RAR-gamma (retinoic acid receptor-gamma)	Human	GD2227-OP
rat8 gene (homologous to human 9-27 gene)	Rat	GD2228-OP
Sg-I (semenogelin-I)	Human	GD2229-OP
Sg-II (semenogelin-II)	Human	GD2230-OP
SL1 (C.elegans-specific upstream short sequence trans-spliced RNA)	Nematode	GD2231-OP
snRNA U1 (small nuclear RNA U1)	Rat, Mouse, Human, Frog, Dog, Chicken, Cow	GD2232-OP
snRNA U2 (small nuclear RNA U2)	Rat, Mouse, Human, Chimpanzee, Gorilla, Baboon	GD2233-OP
snRNA U3 (small nuclear RNA U3)	Rat, Mouse, Cow	GD2234-OP


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snRNA U3 (small nuclear RNA U3)	Rat, Mouse	GD2235-OP
SPI-1 (serine protease inhibitor 1)	Rat	GD2236-OP
SPI-2 (serine protease inhibitor 2)	Rat	GD2237-OP
SPI-3 (serine protease inhibitor 3)	Rat	GD2238-OP
SSA (Sjogren syndrome antigen A)	Yeast	GD2239-OP
SSA (Sjogren syndrome antigen A)	Yeast	GD2240-OP
TAP (tracheal antimicrobial peptide)	Cow	GD2244-OP
TAP (tracheal antimicrobial peptide)	Cow	GD2245-OP
TAP (tracheal antimicrobial peptide)	Cow	GD2243-OP
TAP (tracheal antimicrobial peptide)	Cow	GD2242-OP
TAP (tracheal antimicrobial peptide)	Cow	GD2241-OP
TCR C-alpha (T cell receptor C-alpha)	Human	GD2246-OP
TF-R (transferrin receptor)	Human	GD2248-OP
TF-R (transferrin receptor)	Human	GD2249-OP
TF-R (transferrin receptor)	Human	GD2261-OP
TF-R (transferrin receptor)	Human	GD2251-OP
TF-R (transferrin receptor)	Human	GD2247-OP
TF-R (transferrin receptor)	Human	GD2252-OP
TF-R (transferrin receptor)	Human	GD2253-OP
TF-R (transferrin receptor)	Human	GD2254-OP
TF-R (transferrin receptor)	Human	GD2255-OP
TF-R (transferrin receptor)	Human	GD2256-OP
TF-R (transferrin receptor)	Human	GD2257-OP
TF-R (transferrin receptor)	Human	GD2258-OP
TF-R (transferrin receptor)	Human	GD2259-OP
TF-R (transferrin receptor)	Human	GD2260-OP
TF-R (transferrin receptor)	Human	GD2250-OP
topoisomerase II alpha	Rat	GD2262-OP
topoisomerase II beta	Rat	GD2263-OP
TP-1 (transition protein 1)	Rat	GD2264-OP
TP-2 (transition protein 2)	Rat, Mouse	GD2265-OP
TTR (transthyretin)	Rat	GD2266-OP
tubby	Mouse	GD2270-OP
tubby	Mouse	GD2269-OP
tubby	Mouse	GD2268-OP
tubby	Mouse	GD2267-OP
uteroglobin	Rabbit, Hare	GD2272-OP
VLDLr (very low density lipoprotein receptor)	Rat	GD2273-OP
VPF (vascular permeability factor)	Rat, Mouse, Cow, Pig, Sheep, Deer, Human	GD2275-OP
VPF (vascular permeability factor)	Rat, Mouse, Human, Hamster, Pig, Deer, Mole-rat, Dog, Cow, Monkey, Sheep	GD2274-OP
VPF (vascular permeability factor)	Dog, Monkey, Human	GD2276-OP
ZP3-alpha (zona pellucida glycoprotein 3-alpha)	Pig	GD2277-OP


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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com
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Neuroscience (Neurobiology, Neurotransmission, Neuropeptides, Disease Related Genes)

<u>Neurobiology</u>

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<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
Ag (agrin)	Rat, Mouse	GD1444-OP
Ag (agrin)	Rat	GD1377-OP
Ag (agrin)	Rat	GD1378-OP
Ag Y4 (agrin Y4)	Rat	GD1437-OP
Ag Y4 (agrin Y4)	Rat	GD1438-OP
Ag Z0 (agrin Z0)	Rat	GD1395-OP
Ag Z0 (agrin Z0)	Rat	GD1396-OP
Ag Z19 (agrin Z19)	Rat	GD1351-OP
Ag Z19 (agrin Z19)	Rat	GD1430-OP
Ag Z8 (agrin Z8)	Rat	GD1454-OP
Ag Z8 (agrin Z8)	Rat	GD1413-OP
ALDP (adrenoleukodystrophy protein)	Human	GD1361-OP
alpha-SNAP (alpha-synaptosomal associated protein)	Rat	GD1440-OP
alpha-SNAP (alpha-synaptosomal associated protein)	Rat	GD1350-OP
ARPP-21 (cAMP-regulated phosphoprotein-21)	Rat	GD1414-OP
CART (cocaine and amphetamine regulated transcript)	Human	GD1403-OP
CART (cocaine and amphetamine regulated transcript)	Human	GD1386-OP
CCK (cholecystokinin)	Rat	GD1411-OP
cellubrevin	Rat	GD1348-OP
cellubrevin	Rat	GD1446-OP
chapsyn-110 (also called PSD-93)	Rat, Mouse	GD1388-OP
chromogranin A	Human	GD1360-OP
chromogranin A	Human	GD1385-OP
chromogranin A	Human	GD1428-OP
chromogranin A	Human	GD1427-OP
chromogranin A	Human	GD1456-OP
chromogranin A	Human	GD1368-OP
chromogranin A	Human	GD1374-OP
chromogranin A	Human	GD1441-OP
chromogranin A	Rat	GD1406-OP
chromogranin A	Human	GD1462-OP
chromogranin B	Human	GD1473-OP
chromogranin B	Human	GD1371-OP
chromogranin B	Human	GD1352-OP



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chromogranin B	Human	GD1442-OP
chromogranin B	Human	GD1397-OP
chromogranin B	Human	GD1432-OP
chromogranin B	Human	GD1477-OP
chromogranin B	Human	GD1389-OP
chromogranin B	Human	GD1401-OP
chromogranin B	Rat, Mouse	GD1354-OP
DARPP-32 (dopamine and cAMP regulated phosphoprotein 32)	Rat	GD1400-OP
GAP-43 (growth associated protein 43)	Rat, Mouse, Human	GD1459-OP
GAP-43 (growth associated protein 43)	Rat, Mouse	GD1362-OP
GAP-43 (growth associated protein 43)	Rat, Mouse	GD1421-OP
GAP-43 (growth associated protein 43)	Mouse	GD1402-OP
GAP-43 (growth associated protein 43)	Rat, Mouse	GD1471-OP
gephyrin	Rat	GD1474-OP
gephyrin	Rat	GD1339-OP
gephyrin	Human	GD1390-OP
gephyrin	Rat	GD1381-OP
gephyrin	Rat	GD1467-OP
GFAP (glial fibrillary acidic protein)	Rat	GD1382-OP
GFAP (glial fibrillary acidic protein)	Rat	GD1383-OP
GFAP (glial fibrillary acidic protein)	Rat	GD1419-OP
GFAP (glial fibrillary acidic protein)	Rat, Mouse	GD1375-OP
GFAP (glial fibrillary acidic protein)	Rat	GD1373-OP
GFAP (glial fibrillary acidic protein)	Mouse	GD1472-OP
hippocalcin	Rat	GD1455-OP
hippocalcin	Rat, Mouse	GD1443-OP
hippocalcin	Rat, Mouse	GD1365-OP
hippocalcin	Rat	GD1424-OP
MBP (myelin basic protein)	Mouse	GD1407-OP
MBP (myelin basic protein)	Mouse	GD1470-OP
MBP (myelin basic protein)	Human	GD1408-OP
Munc-18 (mammalian homologue of unc-18)	Rat	GD1425-OP
Munc-18 (mammalian homologue of unc-18)	Rat, Mouse	GD1468-OP
neuropilin-1 (semaphorin D receptor)	Rat, Mouse	GD1460-OP
NF-M (neurofilament (NF) mid-size protein)	Human	GD1435-OP
NNE (non-neuronal enolase)	Rat	GD1346-OP
nociceptin-R (nociceptin receptor, also called orphanin FQ receptor, opiate receptor-like 1)	Mouse	GD1431-OP
NSE (neuron specific enolase)	Rat	GD1463-OP
Nurr1 (nuclear orphan receptor)	Mouse	GD1422-OP
OB-R (leptin receptor)	Monkey, Human	GD1399-OP
OB-R (leptin receptor)	Human	GD1363-OP
OB-R (leptin receptor)	Mouse	GD1394-OP
OB-R (leptin receptor)	Mouse	GD1384-OP
OB-R (leptin receptor)	Mouse	GD1369-OP
OB-R (leptin receptor)	Mouse	GD1372-OP
OB-RbL (leptin receptor b long)	Mouse	GD1338-OP


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OB-RbL (leptin receptor b long)	Mouse	GD1404-OP
p0 (protein zero of myelin)	Rat	GD1355-OP
PLP & DM (proteolipid protein of myelin & DM myotonic dystrophy)	Rabbit, Mouse, Dog	GD1410-OP
PLP (proteolipid protein of myelin)	Rat, Mouse, Human, Rabbit, Pig, Cow, Chicken	GD1343-OP
PLP (proteolipid protein of myelin)	Rat, Mouse	GD1476-OP
PN1 (protease nexin 1)	Rat	GD1412-OP
prosecretogranin II	Rat, Mouse	GD1367-OP
PSD-95 (post-synaptic density 95)	Rat, Mouse, Human	GD1353-OP
RT1-A (MHC class I family)	Rat	GD1340-OP
RT1-A (MHC class I family)	Rat	GD1445-OP
RT1-A (MHC class I family)	Rat	GD1416-OP
RT1-U (MHC class Ib family)	Rat	GD1341-OP
RT1-U (MHC class Ib family)	Rat	GD1415-OP
S100A4 (also called p9Ka)	Human	GD1453-OP
SAP102 (synapse associated protein 102)	Rat, Mouse	GD1392-OP
secretogranin II	Human	GD1409-OP
secretogranin II	Rat, Mouse	GD1393-OP
secretogranin III	Rat	GD1478-OP
secretogranin III	Rat, Mouse	GD1466-OP
secretogranin V	Human	GD1345-OP
SNAP-25 (synaptosomal associated protein 25)	Rat, Mouse	GD1429-OP
SNAP-25 (synaptosomal associated protein 25)	Rat, Mouse	GD1420-OP
SNAP-25 (synaptosomal associated protein 25)	Rat, Monkey, Human	GD1461-OP
SNAP-25 (synaptosomal associated protein 25)	Rat, Mouse, Human, Monkey	GD1347-OP
SNAP-25 (synaptosomal associated protein 25)	Rat, Chicken, Human	GD1366-OP
SNAP-25 (synaptosomal associated protein 25)	Rat, Mouse, Human, Monkey, Chicken	GD1457-OP
SNAP-25a (synaptosomal associated protein 25a)	Rat, Monkey, Human	GD1479-OP
SNAP-25b (synaptosomal associated protein 25b)	Rat, Mouse, Human, Monkey	GD1405-OP
synaphin 1	Rat	GD1387-OP
synaphin 2	Rat	GD1370-OP
synaptophysin	Rat, Mouse, Human	GD1448-OP
synaptophysin	Rat	GD1436-OP
synaptotagmin I	Rat	GD1450-OP
synaptotagmin I	Rat	GD1342-OP
synaptotagmin I	Rat	GD1433-OP
synaptotagmin I	Rat	GD1447-OP
synaptotagmin I	Rat	GD1464-OP
synaptotagmin II	Rat	GD1344-OP
synaptotagmin II	Rat	GD1417-OP
synaptotagmin II	Rat	GD1480-OP
synaptotagmin II	Rat	GD1356-OP


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synaptotagmin III	Rat	GD1349-OP
synaptotagmin III	Rat	GD1357-OP
synaptotagmin III	Rat	GD1475-OP
synaptotagmin III	Rat	GD1439-OP
synaptotagmin IV	Rat	GD1469-OP
synaptotagmin X	Rat	GD1465-OP
syntaxin 1A	Rat	GD1391-OP
syntaxin 1A	Rat	GD1359-OP
syntaxin 1B	Rat	GD1449-OP
syntaxin 1B	Rat	GD1379-OP
syntaxin 2	Rat	GD1451-OP
syntaxin 2	Rat	GD1376-OP
syntaxin 3	Rat, Mouse	GD1418-OP
syntaxin 3	Rat	GD1426-OP
syntaxin 4	Rat	GD1364-OP
syntaxin 4	Rat, Mouse	GD1458-OP
syntaxin 5	Rat	GD1452-OP
syntaxin 5	Rat	GD1358-OP
VAMP-1 (vesicle-associated membrane protein 1)	Rat	GD1398-OP
VAMP-1 (vesicle-associated membrane protein 1)	Rat	GD1423-OP
VAMP-2 (vesicle-associated membrane protein 2)	Rat	GD1380-OP
VAMP-2 (vesicle-associated membrane protein 2)	Rat	GD1434-OP

Neurotransmission

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect® Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
5-HT transporter (serotonin transporter)	Human	GD1484-OP
5-HT transporter (serotonin transporter)	Human	GD1482-OP
5-HT transporter (serotonin transporter)	Human, Rat, Monkey	GD1483-OP
5-HT4L-R (5-hydroxytryptamine (serotonin) 4L receptor)	Rat	GD1486-OP
5-HT4L-R (5-hydroxytryptamine (serotonin) 4L receptor)	Rat	GD1485-OP
5-HT4SL-R (5-hydroxytryptamine (serotonin) 4S & 4L receptors)	Rat	GD1489-OP
5-HT4SL-R (5-hydroxytryptamine (serotonin) 4S & 4L receptors)	Rat	GD1490-OP
5-HT4S-R (5-hydroxytryptamine (serotonin) 4S receptor)	Rat	GD1487-OP
5-HT4S-R (5-hydroxytryptamine (serotonin) 4S receptor)	Rat	GD1488-OP
5-HT7-R (5-hydroxytryptamine (serotonin) receptor 7)	Rat	GD1491-OP
A1-R (adenosine 1 receptor)	Rat	GD1492-OP
A2a-R (adenosine A2a receptor)	Rat	GD1493-OP
AChE (acetylcholinesterase)	Rat	GD1494-OP
AChE (acetylcholinesterase)	Rat	GD1496-OP
AChE (acetylcholinesterase)	Rat	GD1495-OP



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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
alpha-1 AR (adrenoceptor alpha-1 subtype)	Rat	GD1502-OP
alpha-1 AR (adrenoceptor alpha-1 subtype)	Rat	GD1500-OP
alpha-1 AR (adrenoceptor alpha-1 subtype)	Rat, Mouse, Rabbit, Dog, Gerbil, Hamster	GD1497-OP
alpha-1 AR (adrenoceptor alpha-1 subtype)	Rat, Mouse	GD1498-OP
alpha-1 AR (adrenoceptor alpha-1 subtype)	Rat, Mouse	GD1501-OP
alpha-1 AR (adrenoceptor alpha-1 subtype)	Rat	GD1499-OP
alpha-1a AR (adrenoceptor alpha-1a subtype)	Rat	GD1504-OP
alpha-1a AR (adrenoceptor alpha-1a subtype)	Rat	GD1503-OP
alpha-1a AR (adrenoceptor alpha-1a subtype)	Rat	GD1506-OP
alpha-1a AR (adrenoceptor alpha-1a subtype)	Human	GD1505-OP
alpha-1b AR (adrenoceptor alpha-1b subtype)	Rat, Mouse	GD1509-OP
alpha-1b AR (adrenoceptor alpha-1b subtype)	Rat, Mouse, Rabbit, Gerbil, Dog, Hamster	GD1508-OP
alpha-1b AR (adrenoceptor alpha-1b subtype)	Rat	GD1507-OP
alpha-1b AR (adrenoceptor alpha-1b subtype)	Rat, Rabbit, Gerbil	GD1511-OP
alpha-1b AR (adrenoceptor alpha-1b subtype)	Human	GD1510-OP
alpha-1d AR (adrenoceptor alpha-1d subtype)	Rat	GD1516-OP
alpha-1d AR (adrenoceptor alpha-1d subtype)	Rat, Mouse	GD1513-OP
alpha-1d AR (adrenoceptor alpha-1d subtype)	Rat	GD1514-OP
alpha-1d AR (adrenoceptor alpha-1d subtype)	Rat	GD1515-OP
alpha-1d AR (adrenoceptor alpha-1d subtype)	Human	GD1512-OP
alpha-2 AR (adrenoceptor alpha-2 subtype)	Rat	GD1517-OP
alpha-2 AR (adrenoceptor alpha-2 subtype)	Rat	GD1519-OP
alpha-2 AR (adrenoceptor alpha-2 subtype)	Rat	GD1518-OP
alpha-2 AR (adrenoceptor alpha-2 subtype)	Rat	GD1520-OP
beta-1 AR (adrenoceptor beta-1 subtype)	Rat	GD1522-OP
beta-1 AR (adrenoceptor beta-1 subtype)	Rat	GD1521-OP
beta-2 AR (adrenoceptor beta-2 subtype)	Rat	GD1523-OP
beta-2 AR (adrenoceptor beta-2 subtype)	Rat	GD1524-OP
beta-3 AR (adrenoceptor beta-3 subtype)	Human	GD1525-OP
Bz-R (benzodiazepine receptor)	Rat	GD1526-OP
ChAT (choline acetyltransferase)	Mouse	GD1527-OP
ChAT (choline acetyltransferase)	Pig	GD1528-OP
D1a-R (dopamine D1a receptor)	Rat	GD1534-OP
D1a-R (dopamine D1a receptor)	Mouse	GD1535-OP
D1a-R (dopamine D1a receptor)	Rat	GD1536-OP
D1-R (dopamine D1 receptor)	Human	GD1530-OP
D1-R (dopamine D1 receptor)	Rat	GD1529-OP
D1-R (dopamine D1 receptor)	Rat	GD1531-OP
D1-R (dopamine D1 receptor)	Rat	GD1532-OP
D1-R (dopamine D1 receptor)	Rat	GD1533-OP
D2L-R (dopamine D2 receptor long)	Rat, Mouse, Dog	GD1546-OP
D2-R (dopamine D2 receptor)	Rat, Mouse	GD1543-OP
D2-R (dopamine D2 receptor)	Rat	GD1539-OP
D2-R (dopamine D2 receptor)	Rat	GD1544-OP
D2-R (dopamine D2 receptor)	Rat	GD1541-OP


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D2-R (dopamine D2 receptor)	Rat	GD1540-OP
D2-R (dopamine D2 receptor)	Rat	GD1537-OP
D2-R (dopamine D2 receptor)	Rat, Mouse, Human, Monkey, Cow	GD1538-OP
D2-R (dopamine D2 receptor)	Rat, Mouse	GD1542-OP
D2-R (dopamine D2 receptor)	Rat, Mouse	GD1545-OP
D2S-R (dopamine D2 receptor short)	Rat	GD1547-OP
D3-R (dopamine D3 receptor)	Rat	GD1548-OP
D4-R (dopamine D4 receptor)	Rat, Mouse, Human	GD1550-OP
D4-R (dopamine D4 receptor)	Rat, Mouse	GD1551-OP
D4-R (dopamine D4 receptor)	Rat	GD1549-OP
D4-R (dopamine D4 receptor)	Rat	GD1552-OP
DBI (diazepam binding inhibitor, also called acyl-CoA binding protein)	Rat	GD1553-OP
EAAC1 (excitatory amino acid/glutamate transporter 1)	Rabbit	GD1554-OP
EAAC1 (glutamate transporter)	Mouse	GD1555-OP
EAAC1 (glutamate transporter)	Mouse	GD1556-OP
EAAC1 (glutamate transporter)	Rat	GD1557-OP
EAAC1 (glutamate transporter)	Rat	GD1558-OP
EAAT2 (excitatory amino acid/glutamate transporter 2)	Rat, Mouse, Human	GD1559-OP
EAAT3 (excitatory amino acid/glutamate transporter 3)	Rat, Mouse, Human, Dog	GD1560-OP
EAAT4 (excitatory amino acid/glutamate transporter 4)	Mouse	GD1561-OP
EAAT4 (excitatory amino acid/glutamate transporter 4)	Mouse	GD1562-OP
GABAA-R (gamma-aminobutyric acid (GABA) receptor A)	Chicken	GD1564-OP
GABAA-R (gamma-aminobutyric acid (GABA) receptor A)	Chicken	GD1563-OP
GABAA-R alpha-1 (gamma-aminobutyric acid (GABA) receptor A alpha-1 subunit)	Cow	GD1568-OP
GABAA-R alpha-1 (gamma-aminobutyric acid (GABA) receptor A alpha-1 subunit)	Rat	GD1566-OP
GABAA-R alpha-1 (gamma-aminobutyric acid (GABA) receptor A alpha-1 subunit)	Chicken	GD1565-OP
GABAA-R alpha-1 (gamma-aminobutyric acid (GABA) receptor A alpha-1 subunit)	Human	GD1567-OP
GABAA-R alpha-2 (gamma-aminobutyric acid (GABA) receptor A alpha-2 subunit)	Mouse	GD1569-OP
GABAA-R alpha-3 (gamma-aminobutyric acid (GABA) receptor A alpha-3 subunit)	Rat	GD1570-OP
GABAA-R alpha-5 (gamma-aminobutyric acid (GABA) receptor A alpha-5 subunit)	Rat	GD1571-OP
GABAA-R alpha-6 (gamma-aminobutyric acid (GABA) receptor A alpha-6 subunit)	Rat	GD1572-OP
GABAA-R alpha-6 (gamma-aminobutyric acid (GABA) receptor A alpha-6 subunit)	Rat	GD1573-OP
GABAA-R beta-2L (gamma-aminobutyric acid (GABA) receptor A beta-2 long form subunit)	Chicken	GD1574-OP
GABAA-R beta-2S (gamma-aminobutyric acid (GABA) receptor A beta-2 short form subunit)	Chicken	GD1575-OP


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beta-2 short subunit)		
GABAA-R beta-2SL (gamma-aminobutyric acid (GABA) receptor A beta-2 short & long subunits)	Chicken	GD1576-OP
GABAA-R beta-3 (gamma-aminobutyric acid (GABA) receptor A beta-3 subunit)	Rat	GD1577-OP
GABAA-R gamma-2 (gamma-aminobutyric acid (GABA) receptor A gamma-2 subunit)	Mouse	GD1578-OP
GABAA-R gamma-2L (gamma-aminobutyric acid (GABA) receptor A gamma-2 subunit long form)	Mouse	GD1579-OP
GABAA-R gamma-2S (gamma-aminobutyric acid (GABA) receptor A gamma-2 subunit short form)	Human	GD1580-OP
GABAA-R gamma-2SL (gamma-aminobutyric acid (GABA) receptor A gamma-2 short & long subunits)	Chicken	GD1581-OP
GABAA-R gamma-4SL (gamma-aminobutyric acid (GABA) receptor A beta-4 short & long subunits)	Chicken	GD1582-OP
GABAA-R theta (gamma-aminobutyric acid (GABA) receptor A theta subunit)	Rat	GD1583-OP
GABAb-R1 pan (gamma-aminobutyric acid (GABA) receptor B1 pan)	Rat, Mouse, Human	GD1584-OP
GABAb-R1a (gamma-aminobutyric acid (GABA) receptor B1a)	Rat, Mouse, Human	GD1585-OP
GABAb-R1b (gamma-aminobutyric acid (GABA) receptor B1b)	Rat, Mouse	GD1586-OP
GABAb-R1b (gamma-aminobutyric acid (GABA) receptor B1b)	Human	GD1587-OP
GABAc-R rho-1 (gamma-aminobutyric acid (GABA) receptor C rho-1 subunit)	Rat	GD1590-OP
GABAc-R rho-1 (gamma-aminobutyric acid (GABA) receptor C rho-1 subunit)	Human	GD1588-OP
GABAc-R rho-1 (gamma-aminobutyric acid (GABA) receptor C rho-1 subunit)	Rat	GD1589-OP
GABAc-R rho-2 (gamma-aminobutyric acid (GABA) receptor C rho-2 subunit)	Rat	GD1591-OP
GABAc-R rho-2 (gamma-aminobutyric acid (GABA) receptor C rho-2 subunit)	Rat	GD1592-OP
GABAc-R rho-2 (gamma-aminobutyric acid (GABA) receptor C rho-2 subunit)	Rat	GD1593-OP
GAD (glutamic acid decarboxylase)	Cat	GD1597-OP
GAD (glutamic acid decarboxylase)	Rat, Cat	GD1598-OP
GAD (glutamic acid decarboxylase)	Rat, Mouse	GD1595-OP
GAD (glutamic acid decarboxylase)	Mouse	GD1594-OP
GAD (glutamic acid decarboxylase)	Cat, Human	GD1599-OP
GAD (glutamic acid decarboxylase)	Rat, Mouse, Human, Cat	GD1596-OP
GAD65 (glutamic acid decarboxylase 65)	Rat	GD1601-OP
GAD65 (glutamic acid decarboxylase 65)	Rat	GD1602-OP
GAD67 (glutamic acid decarboxylase 67)	Mouse	GD1609-OP
GAD67 (glutamic acid decarboxylase 67)	Rat, Mouse	GD1604-OP
GAD67 (glutamic acid decarboxylase 67)	Rat, Mouse	GD1607-OP
GAD67 (glutamic acid decarboxylase 67)	Rat	GD1605-OP


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GAD67 (glutamic acid decarboxylase 67)	Rat, Human	GD1608-OP
GAD67 (glutamic acid decarboxylase 67)	Rat	GD1603-OP
GAD67 (glutamic acid decarboxylase 67)	Rat	GD1606-OP
GAD-EST (glutamic acid decarboxylase embryonic stop transcript)	Rat	GD1600-OP
GAT-1 (gamma-aminobutyric acid (GABA) transporter 1)	Rat, Cow	GD1611-OP
GAT-1 (gamma-aminobutyric acid (GABA) transporter 1)	Rat, Mouse	GD1612-OP
GAT-1 (gamma-aminobutyric acid (GABA) transporter 1)	Mouse	GD1613-OP
GAT-1 (gamma-aminobutyric acid (GABA) transporter 1)	Rat	GD1614-OP
GAT-1 (gamma-aminobutyric acid (GABA) transporter 1)	Rat, Mouse	GD1610-OP
GAT-1a (gamma-aminobutyric acid (GABA) transporter 1a)	Rat	GD1615-OP
GAT-2 (gamma-aminobutyric acid (GABA) transporter 2)	Mouse	GD1616-OP
GAT-2 (gamma-aminobutyric acid (GABA) transporter 2)	Rat	GD1617-OP
GAT-2 (gamma-aminobutyric acid (GABA) transporter 2)	Rat	GD1618-OP
GAT-2b (gamma-aminobutyric acid (GABA) transporter 2b)	Rat	GD1620-OP
GAT-2b (gamma-aminobutyric acid (GABA) transporter 2b)	Rat	GD1619-OP
GAT-3 (gamma-aminobutyric acid (GABA) transporter 3)	Mouse	GD1623-OP
GAT-3 (gamma-aminobutyric acid (GABA) transporter 3)	Rat	GD1622-OP
GAT-3 (gamma-aminobutyric acid (GABA) transporter 3)	Rat	GD1621-OP
GAT-3c (gamma-aminobutyric acid (GABA) transporter 3c)	Rat	GD1624-OP
GAT-4 (gamma-aminobutyric acid (GABA) transporter 4)	Mouse	GD1625-OP
GLAST (glutamate / aspartate transporter)	Rat	GD1626-OP
GLAST (glutamate / aspartate transporter)	Rat	GD1627-OP
GLT-1 (glial glutamate transporter 1)	Rat, Mouse	GD1628-OP
GLT-1 (glial glutamate transporter 1)	Rat	GD1629-OP
GLT-1 (glutamate transporter)	Mouse	GD1630-OP
GLT-1 (glutamate transporter)	Mouse	GD1631-OP
GluR1 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 1)	Rat, Mouse	GD1632-OP
GluR1 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 1)	Rat	GD1634-OP
GluR1 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 1)	Rat	GD1633-OP
GluR1 flip (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 1 flip)	Human	GD1635-OP
GluR1 flop (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 1 flop)	Rat	GD1636-OP
GluR1 flop (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 1 flop)	Human	GD1638-OP
GluR1 flop (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 1 flop)	Rat	GD1637-OP
GluR1 flop (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 1 flop)	Rat	GD1639-OP
GluR2 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 2)	Rat, Mouse, Human	GD1642-OP
GluR2 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 2)	Rat, Mouse	GD1641-OP


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GeneDetect® Oligonucleotide Gene Probes	www.GeneDetect.com	
GluR2 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 2)	Rat, Mouse	GD1643-OP
GluR2 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 2)	Rat, Mouse	GD1640-OP
GluR2 flip (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 2 flip)	Human	GD1644-OP
GluR2 flop (alpha-amino-isoxazolpropionic acid (AMPA) receptor GluR2 flop subunit)	Rat, Mouse	GD1645-OP
GluR3 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 3)	Rat, Mouse	GD1647-OP
GluR3 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 3)	Rat, Mouse	GD1646-OP
GluR3 flip (alpha-amino-isoxazolpropionic acid (AMPA) receptor GluR3 flip subunit)	Rat, Mouse	GD1648-OP
GluR3 flop (alpha-amino-isoxazolpropionic acid (AMPA) receptor GluR3 flop subunit)	Rat	GD1649-OP
GluR4 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 4)	Rat	GD1651-OP
GluR4 (alpha-amino-isoxazolpropionic acid (AMPA) receptor subunit 4)	Rat	GD1650-OP
GluR4 flip (alpha-amino-isoxazolpropionic acid (AMPA) receptor GluR4 flip subunit)	Rat	GD1652-OP
GluR4 flop (alpha-amino-isoxazolpropionic acid (AMPA) receptor GluR4 flop subunit)	Rat, Mouse, Chicken	GD1653-OP
GluR5 (kainic acid (KA) glutamate receptor subunit 5)	Rat	GD1654-OP
GluR5 (kainic acid (KA) glutamate receptor subunit 5)	Rat	GD1655-OP
GluR5 (kainic acid (KA) glutamate receptor subunit 5)	Rat	GD1656-OP
GluR6 (kainic acid (KA) glutamate receptor subunit 6)	Rat	GD1658-OP
GluR6 (kainic acid (KA) glutamate receptor subunit 6)	Human	GD1657-OP
GluR6 (kainic acid (KA) glutamate receptor subunit 6)	Rat, Mouse	GD1659-OP
GluR7 (kainic acid (KA) glutamate receptor subunit 7)	Rat	GD1661-OP
GluR7 (kainic acid (KA) glutamate receptor subunit 7)	Rat	GD1660-OP
GluT-1 (glutamate transporter)	Mouse	GD1662-OP
GluT-1 (glutamate transporter)	Mouse	GD1663-OP
GS (glutamine synthetase)	Rat, Mouse, Hamster	GD1664-OP
iNOS (inducible nitric oxide synthase)	Rat, Mouse	GD1665-OP
iNOS (inducible nitric oxide synthase)	Rat, Mouse, Human	GD1666-OP
iNOS (inducible nitric oxide synthase)	Rat, Mouse, Human, Sheep, Dog, Monkey	GD1667-OP
KA1 (kainic acid (KA) glutamate receptor subunit 1)	Rat	GD1668-OP
KA1 (kainic acid (KA) glutamate receptor subunit 1)	Rat	GD1669-OP
KA2 (kainic acid (KA) glutamate receptor subunit 2)	Rat	GD1671-OP
KA2 (kainic acid (KA) glutamate receptor subunit 2)	Rat	GD1670-OP
M1-R (muscarinic M1 receptor)	Rat, Mouse	GD1672-OP
M1-R (muscarinic M1 receptor)	Rat	GD1673-OP
M1-R (muscarinic M1 receptor)	Rat	GD1674-OP
M1-R (muscarinic M1 receptor)	Rat, Mouse	GD1675-OP


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M1-R (muscarinic M1 receptor)	Rat	GD1676-OP
M2-R (muscarinic M2 receptor)	Rat	GD1677-OP
M2-R (muscarinic M2 receptor)	Rat	GD1680-OP
M2-R (muscarinic M2 receptor)	Rat, Mouse	GD1681-OP
M2-R (muscarinic M2 receptor)	Rat	GD1679-OP
M2-R (muscarinic M2 receptor)	Rat	GD1678-OP
M3-R (muscarinic M3 receptor)	Rat, Mouse	GD1684-OP
M3-R (muscarinic M3 receptor)	Rat, Mouse	GD1683-OP
M3-R (muscarinic M3 receptor)	Rat	GD1685-OP
M3-R (muscarinic M3 receptor)	Rat	GD1682-OP
M4-R (muscarinic M4 receptor)	Rat, Mouse, Human	GD1687-OP
M4-R (muscarinic M4 receptor)	Rat	GD1688-OP
M4-R (muscarinic M4 receptor)	Rat	GD1690-OP
M4-R (muscarinic M4 receptor)	Rat, Mouse, Human	GD1686-OP
M4-R (muscarinic M4 receptor)	Rat, Human	GD1689-OP
M5-R (muscarinic M5 receptor)	Rat	GD1692-OP
M5-R (muscarinic M5 receptor)	Rat	GD1693-OP
M5-R (muscarinic M5 receptor)	Rat	GD1691-OP
MAO-A (monoamine oxidase A)	Human	GD1694-OP
mGluR1 (metabotropic glutamate receptor 1)	Rat, Mouse, Human	GD1702-OP
mGluR1 (metabotropic glutamate receptor 1)	Frog	GD1699-OP
mGluR1 (metabotropic glutamate receptor 1)	Rat	GD1700-OP
mGluR1 (metabotropic glutamate receptor 1)	Rat	GD1697-OP
mGluR1 (metabotropic glutamate receptor 1)	Rat	GD1696-OP
mGluR1 (metabotropic glutamate receptor 1)	Rat	GD1701-OP
mGluR1 (metabotropic glutamate receptor 1)	Rat	GD1698-OP
mGluR1 (metabotropic glutamate receptor 1)	Rat	GD1695-OP
mGluR1 pan (metabotropic glutamate receptor 1 pan)	Rat	GD1704-OP
mGluR1 pan (metabotropic glutamate receptor 1 pan)	Rat, Frog	GD1703-OP
mGluR1 pan (metabotropic glutamate receptor 1 pan)	Human	GD1705-OP
mGluR1a (metabotropic glutamate receptor 1a)	Rat	GD1708-OP
mGluR1a (metabotropic glutamate receptor 1a)	Rat	GD1710-OP
mGluR1a (metabotropic glutamate receptor 1a)	Human	GD1709-OP
mGluR1a/b (metabotropic glutamate receptor 1a/b)	Rat, Mouse	GD1711-OP
mGluR1-alpha (metabotropic glutamate receptor)	Rat	GD1706-OP
mGluR1-alpha (metabotropic glutamate receptor)	Rat	GD1707-OP
mGluR1b (metabotropic glutamate receptor 1b)	Rat, Human	GD1712-OP
mGluR1b (metabotropic glutamate receptor 1b)	Rat	GD1713-OP
mGluR1b (metabotropic glutamate receptor 1b)	Human	GD1714-OP
mGluR1b (metabotropic glutamate receptor 1b)	Rat, Human	GD1715-OP
mGluR1c (metabotropic glutamate receptor 1c)	Frog	GD1718-OP
mGluR1c (metabotropic glutamate receptor 1c)	Frog	GD1716-OP
mGluR1c (metabotropic glutamate receptor 1c)	Frog	GD1717-OP
mGluR1c (metabotropic glutamate receptor 1c)	Frog	GD1719-OP
mGluR1d (metabotropic glutamate receptor 1d)	Rat	GD1720-OP
mGluR1g (metabotropic glutamate receptor 1g)	Rat	GD1721-OP
mGluR2 (metabotropic glutamate receptor 2)	Rat	GD1722-OP


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mGluR2 (metabotropic glutamate receptor 2)	Rat	GD1723-OP
mGluR3 (metabotropic glutamate receptor 3)	Rat	GD1725-OP
mGluR3 (metabotropic glutamate receptor 3)	Rat	GD1726-OP
mGluR3 (metabotropic glutamate receptor 3)	Rat	GD1724-OP
mGluR4 (metabotropic glutamate receptor 4)	Rat	GD1728-OP
mGluR4 (metabotropic glutamate receptor 4)	Rat	GD1729-OP
mGluR4 (metabotropic glutamate receptor 4)	Rat	GD1727-OP
mGluR4 (metabotropic glutamate receptor 4)	Rat	GD1730-OP
mGluR5 (metabotropic glutamate receptor 5)	Rat	GD1733-OP
mGluR5 (metabotropic glutamate receptor 5)	Rat	GD1731-OP
mGluR5 (metabotropic glutamate receptor 5)	Rat, Mouse, Human	GD1732-OP
mGluR5 (metabotropic glutamate receptor 5)	Rat	GD1734-OP
mGluR5 (metabotropic glutamate receptor 5)	Rat	GD1736-OP
mGluR5 (metabotropic glutamate receptor 5)	Rat	GD1735-OP
mGluR5b (metabotropic glutamate receptor 5b)	Rat, Mouse, Human	GD1737-OP
mGluR7 (metabotropic glutamate receptor 7)	Rat	GD1738-OP
mGluR7 (metabotropic glutamate receptor 7)	Rat	GD1739-OP
nAChR alpha-2 (nicotinic acetylcholine receptor alpha-2 subunit)	Rat	GD1740-OP
nAChR alpha-3 (nicotinic acetylcholine receptor alpha-3 subunit)	Rat	GD1741-OP
nAChR alpha-3 (nicotinic acetylcholine receptor alpha-3 subunit)	Rat	GD1742-OP
nAChR alpha-3 (nicotinic acetylcholine receptor alpha-3 subunit)	Rat	GD1743-OP
nAChR alpha-3 (nicotinic acetylcholine receptor alpha-3 subunit)	Rat	GD1744-OP
nAChR alpha-4 (nicotinic acetylcholine receptor alpha-4 subunit)	Human	GD1746-OP
nAChR alpha-4 (nicotinic acetylcholine receptor alpha-4 subunit)	Human	GD1745-OP
nAChR alpha-4 (nicotinic acetylcholine receptor alpha-4 subunit)	Human	GD1747-OP
nAChR alpha-4 (nicotinic acetylcholine receptor alpha-4 subunit)	Rat	GD1749-OP
nAChR alpha-4 (nicotinic acetylcholine receptor alpha-4 subunit)	Rat	GD1748-OP
nAChR alpha-5 (nicotinic acetylcholine receptor alpha-5 subunit)	Rat	GD1750-OP
nAChR alpha-6 (nicotinic acetylcholine receptor alpha-6 subunit)	Rat	GD1751-OP
nAChR alpha-6 (nicotinic acetylcholine receptor alpha-6 subunit)	Rat	GD1752-OP
nAChR beta-2 (nicotinic acetylcholine receptor beta-2 subunit)	Rat	GD1755-OP
nAChR beta-2 (nicotinic acetylcholine receptor beta-2 subunit)	Rat	GD1753-OP
nAChR beta-2 (nicotinic acetylcholine receptor beta-2 subunit)	Rat	GD1754-OP
nAChR beta-3 (nicotinic acetylcholine receptor beta-3 subunit)	Rat	GD1757-OP
nAChR beta-3 (nicotinic acetylcholine receptor beta-3 subunit)	Rat	GD1756-OP
nAChR beta-4 (nicotinic acetylcholine receptor beta-4 subunit)	Rat	GD1758-OP
NAT (noradrenergic transporter)	Human	GD1759-OP
NAT (noradrenergic transporter)	Monkey, Human	GD1760-OP
NAT (noradrenergic transporter)	Monkey, Human	GD1761-OP
NO (nitric oxide)	Rat	GD1762-OP
NOS (nitric oxide synthase)	Rat	GD1765-OP
NOS (nitric oxide synthase)	Rat	GD1763-OP
NOS (nitric oxide synthase)	Rat, Human	GD1764-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat	GD1785-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat, Mouse, Human	GD1776-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat	GD1777-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat	GD1778-OP


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NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat	GD1779-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Human	GD1775-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat, Mouse	GD1784-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat, Mouse, Human	GD1783-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat, Human	GD1769-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat	GD1768-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat	GD1767-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat, Human	GD1766-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat	GD1770-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat, Human	GD1771-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Human	GD1774-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat	GD1780-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat, Mouse	GD1773-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat, Mouse	GD1786-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat	GD1781-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat, Human	GD1772-OP
NR1 (N-methyl-D-aspartate (NMDA) receptor 1)	Rat	GD1782-OP
NR1 pan (N-methyl-D-aspartate (NMDA) receptor 1 pan)	Human	GD1787-OP
NR1 pan (N-methyl-D-aspartate (NMDA) receptor 1 pan)	Rat, Mouse	GD1788-OP
NR1a (N-methyl-D-aspartate (NMDA) receptor 1a)	Rat	GD1790-OP
NR1a (N-methyl-D-aspartate (NMDA) receptor 1a)	Rat	GD1789-OP
NR1b (N-methyl-D-aspartate (NMDA) receptor 1b)	Rat, Human	GD1792-OP
NR1b (N-methyl-D-aspartate (NMDA) receptor 1b)	Rat, Human	GD1791-OP
NR2A (N-methyl-D-aspartate (NMDA) receptor 2A)	Rat	GD1794-OP
NR2A (N-methyl-D-aspartate (NMDA) receptor 2A)	Human	GD1795-OP
NR2A (N-methyl-D-aspartate (NMDA) receptor 2A)	Rat	GD1793-OP
NR2A (N-methyl-D-aspartate (NMDA) receptor 2A)	Rat	GD1796-OP
NR2B (N-methyl-D-aspartate (NMDA) receptor 2B)	Rat	GD1798-OP
NR2B (N-methyl-D-aspartate (NMDA) receptor 2B)	Rat	GD1799-OP
NR2B (N-methyl-D-aspartate (NMDA) receptor 2B)	Rat	GD1797-OP
NR2C (N-methyl-D-aspartate (NMDA) receptor 2C)	Rat	GD1801-OP
NR2C (N-methyl-D-aspartate (NMDA) receptor 2C)	Rat	GD1802-OP
NR2C (N-methyl-D-aspartate (NMDA) receptor 2C)	Rat	GD1800-OP
NR2D (N-methyl-D-aspartate (NMDA) receptor 2D)	Rat	GD1807-OP
NR2D (N-methyl-D-aspartate (NMDA) receptor 2D)	Rat, Mouse	GD1803-OP
NR2D (N-methyl-D-aspartate (NMDA) receptor 2D)	Rat	GD1806-OP
NR2D (N-methyl-D-aspartate (NMDA) receptor 2D)	Mouse	GD1805-OP
NR2D (N-methyl-D-aspartate (NMDA) receptor 2D)	Rat	GD1804-OP
TH (tyrosine hydroxylase)	Rat	GD1818-OP
TH (tyrosine hydroxylase)	Rat, Mouse	GD1817-OP
TH (tyrosine hydroxylase)	Rat	GD1816-OP
TH (tyrosine hydroxylase)	Rat	GD1815-OP
TH (tyrosine hydroxylase)	Rat	GD1813-OP
TH (tyrosine hydroxylase)	Rat, Mouse	GD1808-OP
TH (tyrosine hydroxylase)	Rat	GD1814-OP
TH (tyrosine hydroxylase)	Rat	GD1819-OP
TH (tyrosine hydroxylase)	Rat	GD1812-OP


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TH (tyrosine hydroxylase)	Human	GD1811-OP
TH (tyrosine hydroxylase)	Monkey, Human	GD1810-OP
TH (tyrosine hydroxylase)	Rat	GD1809-OP
TOH (tryptophan hydroxylase)	Rat	GD1820-OP
<u>Neuropeptides</u>		
<p>Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the <i>GeneDetect® Custom Probe Design &/or Synthesis</i> Section of this Catalog.</p>		
<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
alphaCGRP (calcitonin gene-related peptide)	Rat	GD1001-OP
betaCGRP (calcitonin gene-related peptide)	Rat	GD1002-OP
CCK (Cholecystokinin)	Rat	GD1003-OP
dynorphin	Rat	GD1005-OP
dynorphin	Rat	GD1008-OP
dynorphin	Rat	GD1012-OP
dynorphin	Rat	GD1009-OP
dynorphin	Rat	GD1004-OP
dynorphin	Rat	GD1010-OP
dynorphin	Rat	GD1011-OP
dynorphin	Rat	GD1007-OP
dynorphin	Rat	GD1006-OP
ENK (enkephalin)	Rat	GD1013-OP
ENK pan (prepro, pro and enkephalin)	Rat	GD1049-OP
ENK pan (prepro, pro and enkephalin)	Rat	GD1048-OP
FMRFamide-like peptide exon I	Snail	GD1014-OP
FMRFamide-like peptide exon II	Snail	GD1016-OP
FMRFamide-like peptide exon II	Snail	GD1015-OP
FMRFamide-like peptide exon IIa	Snail	GD1017-OP
FMRFamide-like peptide exon V	Snail	GD1018-OP
GAL (galanin)	Rat, Mouse	GD1019-OP
GAL (galanin)	Rat	GD1020-OP
GAL (galanin)	Rat, Mouse	GD1021-OP
GAL (galanin)	Rat	GD1024-OP
GAL (galanin)	Rat, Mouse	GD1022-OP
GAL (galanin)	Rat	GD1023-OP
GAL (galanin)	Rat	GD1025-OP
GAL pan (prepro, pre and galanin)	Rat	GD1050-OP
GAP-43 (growth-associated protein-43)	Rat	GD1026-OP
muOpioidR (mu-opioid receptor)	Rat	GD1027-OP
muOpioidR (mu-opioid receptor)	Rat	GD1028-OP
NPY (neuropeptide Y)	Rat	GD1030-OP
NPY (neuropeptide Y)	Rat	GD1031-OP


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NPY (neuropeptide Y)	Rat	GD1029-OP
NPYR2 (neuropeptide Y (NPY) receptor 2)	Rat	GD1032-OP
NPYR2 (neuropeptide Y (NPY) receptor 2)	Rat, Mouse	GD1035-OP
NPYR2 (neuropeptide Y (NPY) receptor 2)	Rat	GD1034-OP
NPYR2 (neuropeptide Y (NPY) receptor 2)	Rat	GD1033-OP
NPYR2 (neuropeptide Y (NPY) receptor 2)	Rat	GD1036-OP
NPYR5 (neuropeptide Y (NPY) receptor 5)	Rat	GD1038-OP
NPYR5 (neuropeptide Y (NPY) receptor 5)	Rat	GD1037-OP
NT (neurotensin)	Rat	GD1039-OP
NTR (neurotensin receptor)	Rat	GD1040-OP
NTR2 (neurotensin receptor 2)	Rat	GD1044-OP
NTR2 (neurotensin receptor 2)	Rat	GD1043-OP
NTR2 (neurotensin receptor 2)	Rat	GD1042-OP
NTR2 (neurotensin receptor 2)	Rat	GD1041-OP
PACAP (pituitary adenylate cyclase activating polypeptide)	Rat	GD1047-OP
PACAP (pituitary adenylate cyclase activating polypeptide)	Rat, Mouse	GD1046-OP
PACAP (pituitary adenylate cyclase activating polypeptide)	Rat	GD1045-OP
POMC (proopiomelanocortin)	Rat, Mouse	GD1055-OP
POMC (proopiomelanocortin)	Human	GD1059-OP
POMC (proopiomelanocortin)	Rat, Mouse, Human, Guinea Pig, Monkey	GD1058-OP
POMC (proopiomelanocortin)	Rat, Human, Monkey, Guinea Pig	GD1057-OP
POMC (proopiomelanocortin)	Rat, Mouse, Human, Mink, Guinea Pig, Hamster, Pig, Monkey	GD1054-OP
POMC (proopiomelanocortin)	Rat, Hamster, Pig, Monkey, Mink	GD1056-OP
preproENK (preproenkephalin)	Rat	GD1060-OP
preproENK (preproenkephalin)	Human	GD1061-OP
preproENKA (preproenkephalin A)	Rat	GD1062-OP
preproENKB (preproenkephalin B)	Rat, Mouse	GD1063-OP
preproHCRT (preprohypocretin, preproorexin)	Rat, Mouse	GD1064-OP
preproNPY (preproneuropeptide Y)	Rat, Mouse	GD1065-OP
preproSST (preprosomatostatin)	Rat, Mouse	GD1068-OP
preproSST (preprosomatostatin)	Rat, Mouse	GD1067-OP
preproSST (preprosomatostatin)	Rat, Mouse	GD1066-OP
preproVIP (vasoactive intestinal peptide)	Human	GD1069-OP
prodynorphin	Rat	GD1070-OP
proENK (proenkephalin)	Rat	GD1071-OP
proENK (proenkephalin)	Rat	GD1072-OP
SST (somatostatin)	Rat, Mouse	GD1073-OP
SST (somatostatin)	Rat, Mouse	GD1077-OP
SST (somatostatin)	Rat	GD1079-OP
SST (somatostatin)	Rat, Mouse	GD1078-OP
SST (somatostatin)	Fish	GD1075-OP


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SST (somatostatin)	Rat	GD1076-OP
SST pan (prepro, pre and somatostatin)	Rat, Mouse	GD1051-OP
SubP (substance P)	Cow	GD1074-OP
TK (tachykinin)	Rat	GD1085-OP
TK (tachykinin)	Rat, Mouse	GD1086-OP
TKA pan (prepro, pre and tachykinin)	Rat, Mouse, Human, Rabbit, Hamster	GD1052-OP
TKA pan (prepro, pre and tachykininA)	Rat, Mouse, Human, Shrew, Guinea-Pig, Rabbit, Cow	GD1053-OP
TRH (thyrotropin-releasing hormone)	Rat	GD1087-OP
VIP (vasoactive intestinal peptide)	Chicken	GD1091-OP
VIP (vasoactive intestinal peptide)	Rat	GD1090-OP
VIP (vasoactive intestinal peptide)	Rat	GD1089-OP
VIP (vasoactive intestinal peptide)	Rat, Mouse, Human	GD1088-OP
VIP (vasoactive intestinal peptide)	Rat	GD1092-OP

Disease Related Genes

Custom Probes. If you cannot find your probe in our Catalog, or if you want an existing probe to a different species, we can design and/or synthesize probes to your specifications. See the *GeneDetect® Custom Probe Design &/or Synthesis* Section of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
alpha-dystroglycan	Mouse	GD1287-OP
APP (beta-amyloid precursor protein)	Human	GD1289-OP
APP (beta-amyloid precursor protein)	Rat, Mouse, Human	GD1290-OP
APP (beta-amyloid precursor protein)	Rat	GD1295-OP
APP (beta-amyloid precursor protein)	Rat	GD1291-OP
APP (beta-amyloid precursor protein)	Mouse	GD1288-OP
APP (beta-amyloid precursor protein)	Mouse	GD1292-OP
APP (beta-amyloid precursor protein)	Human	GD1293-OP
APP (beta-amyloid precursor protein)	Human	GD1294-OP
APP695 (beta-amyloid precursor protein 695)	Human	GD1296-OP
APP751 (beta-amyloid precursor protein 751)	Mouse	GD1298-OP
APP751 (beta-amyloid precursor protein 751)	Human	GD1297-OP
APP751 (beta-amyloid precursor protein 751)	Human	GD1299-OP
APP751 (beta-amyloid precursor protein 751)	Human, Monkey, Pig	GD1300-OP
DM (myotonic dystrophy)	Mouse, Human	GD1311-OP
DM (myotonic dystrophy)	Human	GD1313-OP
DM (myotonic dystrophy)	Human	GD1303-OP
DM (myotonic dystrophy)	Human	GD1304-OP
DM (myotonic dystrophy)	Human	GD1305-OP



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DM (myotonic dystrophy)	Human	GD1306-OP
DM (myotonic dystrophy)	Human	GD1302-OP
DM (myotonic dystrophy)	Human	GD1307-OP
DM (myotonic dystrophy)	Human	GD1308-OP
DM (myotonic dystrophy)	Human	GD1309-OP
DM (myotonic dystrophy)	Human	GD1310-OP
DM (myotonic dystrophy)	Human	GD1314-OP
DM (myotonic dystrophy)	Rat, Mouse, Human	GD1312-OP
DM (myotonic dystrophy)	Rat, Mouse, Human	GD1301-OP
Dp71 (G-dystrophin)	Mouse	GD1315-OP
FMR1 (Fragile X mental retardation 1)	Rat, Mouse, Human	GD1319-OP
FMR1 (Fragile X mental retardation 1)	Mouse	GD1316-OP
FMR1 (Fragile X mental retardation 1)	Human	GD1317-OP
FMR1 (Fragile X mental retardation 1)	Human	GD1318-OP
FXR1 (Fragile X related protein 1)	Human	GD1320-OP
FXR1 (Fragile X related protein 1)	Human	GD1321-OP
FXR1 (Fragile X related protein 1)	Human	GD1322-OP
FXR2 (Fragile X related protein 2)	Human	GD1324-OP
FXR2 (Fragile X related protein 2)	Human	GD1325-OP
FXR2 (Fragile X related protein 2)	Human	GD1326-OP
FXR2 (Fragile X related protein 2)	Human	GD1323-OP
G-dystrophin (also called Dp71, apodystrophin 1)	Rat	GD1327-OP
HAP1a (huntingtin associated protein 1a)	Rat	GD1328-OP
HAP1a (huntingtin associated protein 1a)	Rat	GD1329-OP
HAP1b pan (huntingtin associated protein 1b pan)	Rat	GD1330-OP
HAP1b pan (huntingtin associated protein 1b pan)	Rat	GD1331-OP
PLP & DM (proteolipid protein of myelin & DM myotonic dystrophy)	Rabbit, Mouse, Dog	GD1410-OP
PS1 (presenilin 1)	Rat, Lemur, Human	GD1336-OP
PS1 (presenilin 1)	Human	GD1332-OP
PS1 (presenilin 1)	Human	GD1333-OP
PS1 (presenilin 1)	Mouse	GD1334-OP
PS1 (presenilin 1)	Mouse	GD1335-OP
tau protein	Rat	GD1481-OP
tau protein	Rat	GD1337-OP
tau protein	Rat	GD1338-OP


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Plants		
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<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
Haptophyta algae 18S rRNA	Plankton	GD2278-OP
Pelagophyceae algae 18S rRNA	Algae	GD2280-OP
Pelagophyceae algae 18S rRNA	Algae	GD2279-OP
Universal Eukaryotic algae probe 18S rRNA	Mollusc, Fungi	GD2281-OP

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Transcription Factors		
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<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
c-fos	Rat	GD1828-OP
c-fos	Rat	GD1852-OP
c-fos	Rat	GD1851-OP
c-fos	Rat	GD1822-OP
c-fos	Rat	GD1861-OP
c-fos	Mouse	GD1834-OP
c-fos	Rat, Mouse	GD1865-OP
c-fos	Rat	GD1864-OP
c-fos	Human, Rat, Bacteria, Cress	GD1840-OP
c-fos	Rat, Mouse	GD1846-OP
c-fos	Rat	GD1856-OP
c-fos	Rat	GD1874-OP
c-fos	Rat	GD1853-OP
c-jun	Rat, Mouse, Human, Pig	GD1849-OP
c-jun	Rat, Mouse, Human, Pig, Drosophila	GD1836-OP
c-jun	Rat, Mouse, Pig	GD1860-OP
c-Jun	Mouse	GD1847-OP



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c-Jun	Mouse	GD1844-OP
c-jun	Rat, Human	GD1850-OP
c-jun	Rat	GD1821-OP
c-jun	Rat	GD1835-OP
egr-2	Mouse	GD1873-OP
egr-3	Rat, Mouse	GD1858-OP
fosB	Mouse, Human	GD1826-OP
fosB	Mouse	GD1855-OP
fosB	Mouse	GD1824-OP
fosB	Mouse, Human	GD1823-OP
fra-1 (fos related antigen 1)	Rat	GD1857-OP
fra-2 (fos related antigen 2)	Chicken	GD1825-OP
FREAC-1 (forkhead related activator 1)	Mouse	GD1845-OP
FREAC-1 (forkhead related activator 1)	Mouse	GD1866-OP
junB	Rat, Mouse	GD1859-OP
junB	Rat, Mouse	GD1841-OP
junB	Rat, Mouse	GD1848-OP
junB	Mouse	GD1842-OP
junB	Mouse	GD1854-OP
junD	Rat	GD1833-OP
junD	Mouse	GD1867-OP
junD	Mouse, Human	GD1832-OP
junD	Mouse	GD1871-OP
myc	Rat, Bat, Shrew, Virus, Pig, Woodchuck, Cat, Chimpanzee, Dog, Human	GD1862-OP
myc	Human	GD1843-OP
myc	Chimpanzee, Human	GD1872-OP
myc	Chimpanzee, Human	GD1838-OP
myc	Chimpanzee, Monkey, Human	GD1839-OP
myc	Chimpanzee, Human	GD1827-OP
myc	Chimpanzee, Monkey, Dog, Human	GD1837-OP
MYT1 (myelin transcription factor 1)	Human	GD1869-OP
NGFIA (also called zif268, krox24, TIS8, egr1)	Rat, Mouse	GD1831-OP
NGFIB (also called nur77, N10, TIS1)	Rat	GD1868-OP
NGFIC	Rat, Mouse	GD1829-OP
PC-4	Rat	GD1830-OP
SRF (serum response factor)	Human	GD1870-OP
zif268 (also termed NGF-1A or Krox-24)	Rat, Mouse	GD1863-OP


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PRODUCTS

GeneDetect[®] Transcription Factor Decoys

Use our GeneDetect[®] Transcription Factor Oligodeoxynucleotide Decoys (ODN decoys) to inhibit specific transcription factors in cell culture.

We supply GeneDetect[®] Transcription Factor Decoys to 45 common transcription factors. If you do not see your decoy of interest, we can design & synthesize decoys to your specifications (see the *Custom Decoy Design & Synthesis* Section of this Catalog below).

Try our Mutant Decoys for use as a control (see below), or order our Kits to get both Wild Type & Mutant Decoys. Visit our Decoy Webpage at www.genedetect.com/decoys.htm.

Introduction

Cells can respond to stimuli (normal or pathological) by changing the levels of expression of specific genes. The cellular proteins that regulate changes in gene expression are called transcription factors. Transcription factors are generally nuclear and can either be constitutively expressed within the cell (present under basal conditions, for example CREB) or themselves inducible (for example AP-1).

These transcription factor proteins bind specific sequences found in the promoter regions of genes (target genes) whose expression they then regulate (switch on or off). These binding sequences are generally 6-10 base pairs in length and are occasionally found in multiple copies within the promoter regions of target genes.

Although the transcription factor protein-DNA interaction is sequence-specific, the binding site for one given transcription factor may vary by several base pairs within different target genes. Therefore when we describe the specific DNA binding sequence for a transcription factor we refer to the non-variable part of the binding sequence, that is, the transcription factor consensus sequence. For example, the AP-1 transcription factor made up of Fos and Jun proteins binds to the TGACTCA consensus sequence. In comparison the consensus sequence for the Smad transcription factor family which mediate TGF- β , activin and BMP induced changes in gene expression is CAGACA.



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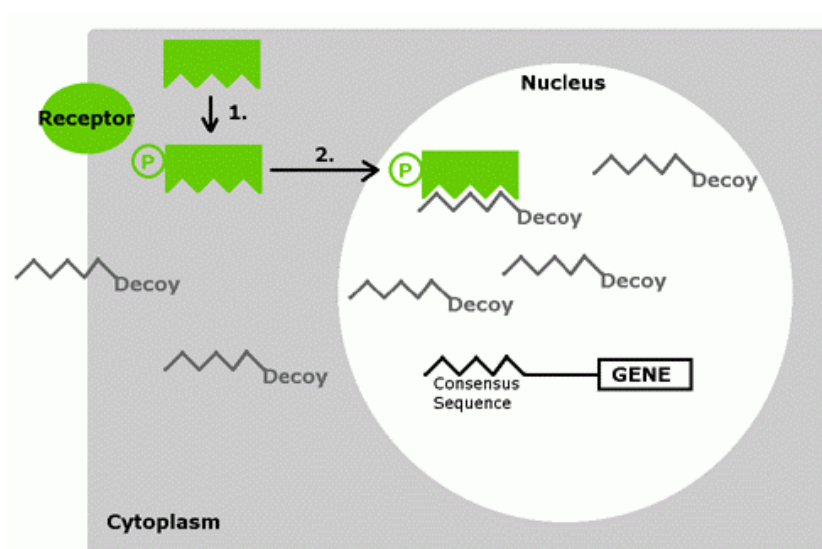
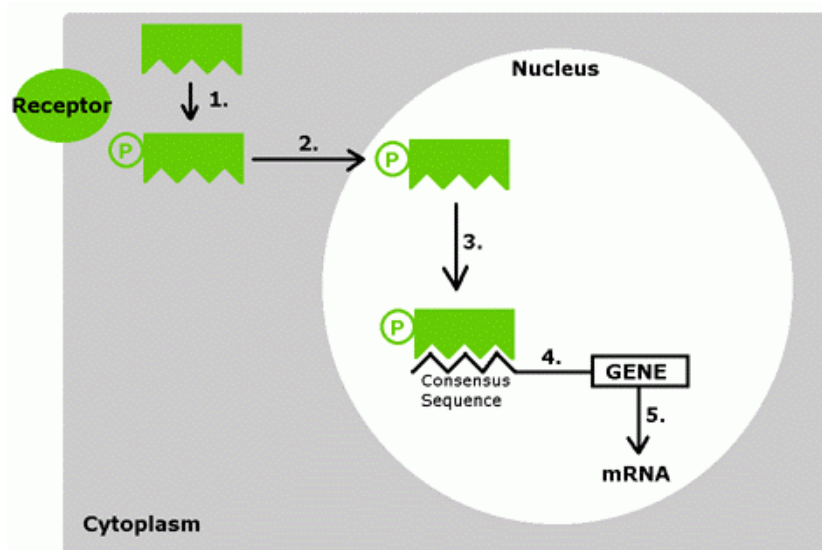
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GeneDetect[®] Transcription Factor Decoys

Transcription Factor ODN Decoy Approach

The basic theory behind the transcription factor ODN decoy approach involves flooding the cell with competing synthetic, transcription factor-specific consensus sequences. These synthetic decoys "compete" for binding of the transcription factor with consensus sequences in target genes. If delivered into the cell in sufficient concentrations these "decoys" thus have the potential to attenuate the binding of the transcription factor to promoter regions of target genes and thus attenuate the function of the transcription factor to regulate the expression of its target gene(s). Transfected at high concentrations these decoys have been reported in the literature to completely block transcription factor function. Clearly they represent powerful research tools for studying gene regulation both in vitro and also more recently in vivo (for Reviews see *Moshita et al.*, 1998, *Mann and Dzau*, 2000).



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GeneDetect[®] Transcription Factor Decoys

Advantages and Disadvantages of the ODN Decoy Approach for Studying Cellular Gene Expression

Advantages

1. ODN decoys offer a means of specifically inhibiting transcription factor function in living cells.
2. Inexpensive compared to other more classical methods of investigating gene expression such as chloramphenicol acetyltransferase and luciferase constructs in promoter-reporter gene transfection experiments.
3. Allows for investigation of both endogenous and pathological gene regulation.
4. Proven to be highly effective and selective within *in vitro* experiments.
5. Easy to use.

Disadvantages

1. An emerging technology that has not yet been fully characterized.
2. Issues of decoy synthesis. High levels of purity and stability required.
3. Transfection issues. Which method is best. How to optimize transfection.
4. Issue of controls. What controls are needed.

ODN Decoys Available From GeneDetect.com

We have designed ODN decoys to over 45 common transcription factors. Our decoys are double-stranded synthetic phosphorothioate deoxynucleotides which range in length from 20-28 base pairs. The transcription factor consensus sequence occurs within the middle of the decoy sequence and is flanked by carefully selected base-pairs that allow for "optimized" transcription factor binding. These decoys are also available labeled so that you are able to optimize your specific transfection technique by imaging the passage of the decoy into the cell (for example by fluorescence microscopy). Our decoys are purified by HPLC and assessed by gel electrophoresis to ensure that >99% of decoy supplied represents full length, double stranded, functional decoy. As a control, matching Mutant Decoys are available for each transcription factor. Mutant Decoys have the same flanking sequences but contain a disrupted consensus sequence in comparison with the Wild Type Decoy.

How Are These Decoys Used?

The majority of experiments to date have used transcription factor ODN decoys to examine gene regulation in cultured primary cells and cell lines. The most important variables involved in determining whether or not your decoy performs its required function include (a) the combination of cell type/cell density and transfection reagent used (b) the time cells are incubated with decoy and (c) the concentration of decoy used.

A. The combination of cell type/cell density and transfection reagent used

While some investigators have achieved success by simply adding naked ODN decoys directly into the cell culture media, the most common method of *in vitro* ODN decoy transfection is to mix the decoy with a cationic lipid to form a liposome complex before adding the decoy/liposome mixture directly to the media. To aid transfection therefore we recommend mixing of your decoy with an effective liposome-based carrier substance. One transfection reagent we have had good success with in our laboratories is the OligofectAMINE reagent. This is a proprietary formulation available from Invitrogen (www.invitrogen.com)



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that is designed to optimize transfection of phosphorothioate ODNs into eukaryotic cells. Stable complexes are formed between the lipid and the ODN permitting efficient delivery of the ODN into mammalian cells. This product represents an improvement over the Lipofectin reagent in respect to transfection of ODNs. Please follow the manufacturers guidelines for use of this product. Product sheets are available via their website. Other transfection reagents we have had previous success with include FuGene 6 from Roche Diagnostics (<http://biochem.roche.com>) and Superfect Transfection Reagent from Qiagen (www.qiagen.com).

Obviously certain cell types are more susceptible to transfection than others and certain liposome carriers perform better with certain cell types. Therefore an amount of trial and error may be required to optimize transfection under your specific conditions. It is therefore helpful to have a way of measuring the kinetics and efficiency of transfection of your ODN decoy. One way of doing this is to use either biotin or fluorescently labeled decoys. After incubation of ODN decoys with your cells you can assess transfection efficiency by fluorescent microscopy or biotin detection. With successful transfection you should expect to see a strong nuclear signal with weaker but noticeable signal in the cytoplasm in 60-90% of your cells.

We have noticed that the transfection efficiency of ODN decoys and indeed ODNs in general (for example antisense ODNs) is much more sensitive to cell density than that of plasmid DNA. Therefore we recommend that a standard seeding protocol be maintained from experiment to experiment and that cell density be varied, if required, to optimize transfection efficiency.

B. The time cells are incubated with ODN decoy

The time of incubation of cells with ODN decoys is critical. While there is no standard time of incubation due to the many other variables that can affect the incubation time required (including but not limited to ODN decoy concentration, cell type and transfection reagent used) an incubation time of 8hrs (minimum) to 24-28 hrs (maximum without re-addition of ODN decoy) is suggested. Significant ODN decoy degradation has been reported to occur after incubation periods of longer than 24 hrs. Obviously frequent re-addition of ODN decoy could be used to provide continuous blockade of transcription factor functionality beyond 24 hrs if required.

C. The concentration of ODN decoy used

Within the recent literature ODN decoy concentrations of up to 5mM appear to be well tolerated and highly effective in most cell types with little or no observable effect on cell viability. With the newer transfection reagents (such as OligofectAMINE) a final ODN decoy concentration within the range of 0.1-2µM will be sufficient to block transcription factor activity without inducing non-specific cellular toxicity.

Controls

To confirm that the effects of the ODN decoy are due to a consensus sequence-specific inhibition of transcription factor functionality rather than a non-specific effect of the ODN decoy on cell viability or functioning we recommend using our matching Mutant ODN Decoys as controls in each experiment. Mutant Decoys have the same flanking sequences but contain a disrupted consensus sequence that does not bind transcription factor.

References

- Morishita, R., Higaki, J., Tomita N. and Ogihara T. (1998) Application of transcription factor "decoy" strategy as means of gene therapy and study of gene expression in cardiovascular disease. [Circ Res 82, 1023-1028](#).
- Mann, M.J. and Dzau, V.J. (2000) Therapeutic applications of transcription factor decoy oligonucleotides. [J. Clin. Invest. 106, 1071-1075](#).



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Transcription Factor Decoys

Custom Decoys. If you cannot find a Transcription Factor Decoy in our Catalog, we can design & synthesize Decoys or Mutant Decoys to your specifications. See the *Custom Decoy Design & Synthesis* Section (below) of this Catalog.

<u>Product Name</u>	<u>Species</u>	<u>Product Code</u>
AP-1 transcription factor decoy	All species	GD1001-DY
AP-1 transcription factor mutant decoy	All species	GD1002-DY
AP-1 transcription factor decoy Kit	All species	GD1003-DY
AP-2alpha transcription factor decoy	All species	GD1043-DY
AP-2alpha transcription factor mutant decoy	All species	GD1044-DY
AP-2alpha transcription factor decoy Kit	All species	GD1045-DY
AR (Androgen receptor) decoy	All species	GD1082-DY
AR (Androgen receptor) mutant decoy	All species	GD1083-DY
AR (Androgen receptor) decoy Kit	All species	GD1084-DY
C/EBP transcription factor decoy	All species	GD1037-DY
C/EBP transcription factor mutant decoy	All species	GD1038-DY
C/EBP transcription factor decoy Kit	All species	GD1039-DY
c-Myb transcription factor decoy	All species	GD1127-DY
c-Myb transcription factor mutant decoy	All species	GD1128-DY
c-Myb transcription factor decoy Kit	All species	GD1129-DY
CREB transcription factor decoy	All species	GD1007-DY
CREB transcription factor mutant decoy	All species	GD1008-DY
CREB transcription factor decoy Kit	All species	GD1009-DY
E2F-1 transcription factor decoy	All species	GD1013-DY
E2F-1 transcription factor mutant decoy	All species	GD1014-DY
E2F-1 transcription factor decoy Kit	All species	GD1015-DY
Egr transcription factor decoy	All species	GD1031-DY
Egr transcription factor mutant decoy	All species	GD1032-DY
Egr transcription factor decoy Kit	All species	GD1033-DY
Ets family transcription factor decoy	All species	GD1085-DY
Ets family transcription factor mutant decoy	All species	GD1086-DY
Ets family transcription factor decoy Kit	All species	GD1087-DY
Ets-1/PEA3 transcription factor decoy	All species	GD1076-DY
Ets-1/PEA3 transcription factor mutant decoy	All species	GD1077-DY
Ets-1/PEA3 transcription factor decoy Kit	All species	GD1078-DY
GAS transcription factor decoy	All species	GD1058-DY
GAS transcription factor mutant decoy	All species	GD1059-DY
GAS transcription factor decoy Kit	All species	GD1060-DY
GATA transcription factor decoy	All species	GD1028-DY
GATA transcription factor mutant decoy	All species	GD1029-DY
GATA transcription factor decoy Kit	All species	GD1030-DY



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GR (Glucocorticoid receptor) mutant decoy	All species	GD1071-DY
GR (Glucocorticoid receptor) decoy Kit	All species	GD1072-DY
IRF-1 (Interferon regulatory factor-1) decoy	All species	GD1115-DY
IRF-1 (Interferon regulatory factor-1) mutant decoy	All species	GD1116-DY
IRF-1 (Interferon regulatory factor-1) decoy Kit	All species	GD1117-DY
ISRE transcription factor decoy	All species	GD1019-DY
ISRE transcription factor mutant decoy	All species	GD1020-DY
ISRE transcription factor decoy Kit	All species	GD1021-DY
MEF-1 transcription factor decoy	All species	GD1049-DY
MEF-1 transcription factor mutant decoy	All species	GD1050-DY
MEF-1 transcription factor decoy Kit	All species	GD1051-DY
MEF-2 transcription factor decoy	All species	GD1052-DY
MEF-2 transcription factor mutant decoy	All species	GD1053-DY
MEF-2 transcription factor decoy Kit	All species	GD1054-DY
Myc-Max transcription factor decoy	All species	GD1016-DY
Myc-Max transcription factor mutant decoy	All species	GD1017-DY
Myc-Max transcription factor decoy Kit	All species	GD1018-DY
NF-1 transcription factor decoy	All species	GD1079-DY
NF-1 transcription factor mutant decoy	All species	GD1080-DY
NF-1 transcription factor decoy Kit	All species	GD1081-DY
NFAT (cytoplasmic) transcription factor decoy	All species	GD1118-DY
NFAT (cytoplasmic) transcription factor mutant decoy	All species	GD1119-DY
NFAT (cytoplasmic) transcription factor decoy Kit	All species	GD1120-DY
NF-E2 transcription factor decoy	All species	GD1034-DY
NF-E2 transcription factor mutant decoy	All species	GD1035-DY
NF-E2 transcription factor decoy Kit	All species	GD1036-DY
NFκB transcription factor decoy	All species	GD1010-DY
NFκB transcription factor mutant decoy	All species	GD1011-DY
NFκB transcription factor decoy Kit	All species	GD1012-DY
Oct-1 transcription factor decoy	All species	GD1040-DY
Oct-1 transcription factor mutant decoy	All species	GD1041-DY
Oct-1 transcription factor decoy Kit	All species	GD1042-DY
p53 transcription factor decoy	All species	GD1121-DY
p53 transcription factor mutant decoy	All species	GD1122-DY
p53 transcription factor decoy Kit	All species	GD1123-DY
Pbx 1 transcription factor decoy	All species	GD1124-DY
Pbx 1 transcription factor mutant decoy	All species	GD1125-DY
Pbx 1 transcription factor decoy Kit	All species	GD1126-DY
Pit 1 transcription factor decoy	All species	GD1064-DY
Pit 1 transcription factor mutant decoy	All species	GD1065-DY
Pit 1 transcription factor decoy Kit	All species	GD1066-DY
PR (Progesterone receptor) decoy	All species	GD1067-DY
PR (Progesterone receptor) mutant decoy	All species	GD1068-DY
PR (Progesterone receptor) decoy Kit	All species	GD1069-DY



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RAR (DR-5, Retinoic Acid receptor) mutant decoy	All species	GD1092-DY
RAR (DR-5, Retinoic Acid receptor) decoy Kit	All species	GD1093-DY
RXR (DR-1, Retinoic X receptor) decoy	All species	GD1088-DY
RXR (DR-1, Retinoic X receptor) mutant decoy	All species	GD1089-DY
RXR (DR-1, Retinoic X receptor) decoy Kit	All species	GD1090-DY
SBE (Smad) transcription factor decoy	All species	GD1130-DY
SBE (Smad) transcription factor mutant decoy	All species	GD1131-DY
SBE (Smad) transcription factor decoy Kit	All species	GD1132-DY
SIE transcription factor decoy	All species	GD1022-DY
SIE transcription factor mutant decoy	All species	GD1023-DY
SIE transcription factor decoy Kit	All species	GD1024-DY
Sp1 transcription factor decoy	All species	GD1004-DY
Sp1 transcription factor mutant decoy	All species	GD1005-DY
Sp1 transcription factor decoy Kit	All species	GD1006-DY
SRE (Serum Response Factor) decoy	All species	GD1055-DY
SRE (Serum Response Factor) mutant decoy	All species	GD1056-DY
SRE (Serum Response Factor) decoy Kit	All species	GD1057-DY
Stat1 p84/p91 transcription factor decoy	All species	GD1112-DY
Stat1 p84/p91 transcription factor mutant decoy	All species	GD1113-DY
Stat1 p84/p91 transcription factor decoy Kit	All species	GD1114-DY
Stat3 transcription factor decoy	All species	GD1109-DY
Stat3 transcription factor mutant decoy	All species	GD1110-DY
Stat3 transcription factor decoy Kit	All species	GD1111-DY
Stat4 transcription factor decoy	All species	GD1106-DY
Stat4 transcription factor mutant decoy	All species	GD1107-DY
Stat4 transcription factor decoy Kit	All species	GD1108-DY
Stat5 transcription factor decoy	All species	GD1100-DY
Stat5 transcription factor mutant decoy	All species	GD1101-DY
Stat5 transcription factor decoy Kit	All species	GD1102-DY
Stat5/Stat6 transcription factor decoy	All species	GD1103-DY
Stat5/Stat6 transcription factor mutant decoy	All species	GD1104-DY
Stat5/Stat6 transcription factor decoy Kit	All species	GD1105-DY
TFIID transcription factor decoy	All species	GD1046-DY
TFIID transcription factor mutant decoy	All species	GD1047-DY
TFIID transcription factor decoy Kit	All species	GD1048-DY
THR (DR-4, Thyroid hormone receptor) decoy	All species	GD1097-DY
THR (DR-4, Thyroid hormone receptor) mutant decoy	All species	GD1098-DY
THR (DR-4, Thyroid hormone receptor) decoy Kit	All species	GD1099-DY
THR (Palindrome, Thyroid hormone receptor) decoy Kit	All species	GD1096-DY
THR (Palindrome, Thyroid hormone receptor) mutant decoy	All species	GD1095-DY
THR (Palindrome, Thyroid hormone receptor) decoy	All species	GD1094-DY
USF-1 transcription factor decoy	All species	GD1073-DY
USF-1 transcription factor mutant decoy	All species	GD1074-DY
USF-1 transcription factor decoy Kit	All species	GD1075-DY



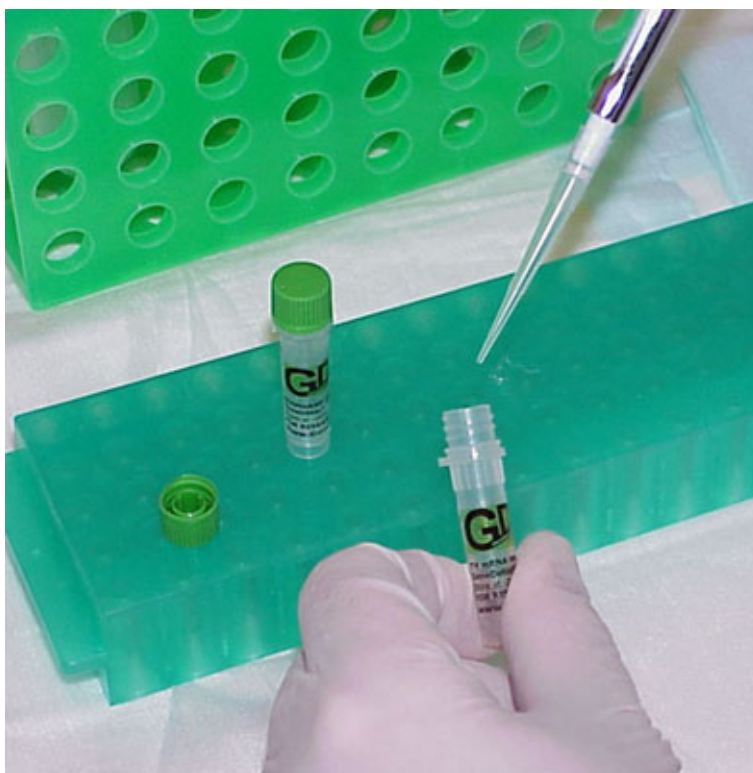
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VDR (DR-3, Vitamin D receptor) mutant decoy	All species	GD1062-DY
VDR (DR-3, Vitamin D receptor) decoy Kit	All species	GD1063-DY
YY1 transcription factor decoy	All species	GD1025-DY
YY1 transcription factor mutant decoy	All species	GD1026-DY
YY1 transcription factor decoy Kit	All species	GD1027-DY

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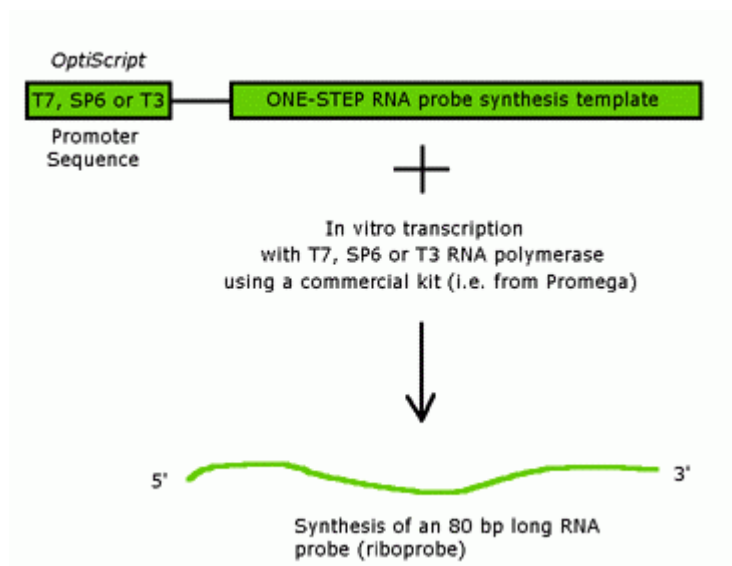
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Custom GeneDetect[®] ONE-STEP[™] RNA Probe Synthesis Templates with your choice of T7, T3 or SP6 *OptiScript*[™] promoters.

"It is now possible to prepare an optimized RNA hybridization probe (riboprobe) to any target gene cheaply and faster than ever before".

Fig 1. Preparation of an RNA probe for in situ hybridization by in vitro transcription.



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GeneDetect® ONE-STEP™ RNA Probe Synthesis Templates

Single-stranded RNA probes also called complementary RNA (cRNA) or riboprobes (it must be noted that riboprobe® is actually a registered trademark of Promega Corporation) are often used for *in situ* hybridization because:

1. They are extremely sensitive (due to the fact that they can be labeled to high specific activity during probe synthesis)
2. RNA-RNA hybrids are more stable than DNA-RNA hybrids, and
3. Non-specific tissue signals can be removed after hybridization with RNase A since RNA duplexes (representing specific binding) are resistant to degradation by RNase A.

One major disadvantage of using traditional RNA probes is the amount of effort required to actually prepare these probes.

RNA probes are usually prepared by *in vitro* transcription. The RNA probe is transcribed from a linear DNA template using highly specific bacteriophage DNA-dependant RNA polymerases from the Salmonella bacteriophage SP6, and the E.coli bacteriophages T3 and T7 (RNA polymerase T7, T3 or SP6). The investigator must therefore obtain sufficient quantities of a plasmid carrying the gene sequence of interest that can be used as the template for RNA probe synthesis. Furthermore, before a riboprobe can be transcribed the correct RNA polymerase promoter sequences must be available in the plasmid in the correct orientation with respect to the template sequence. If the cloned gene exists in a plasmid lacking these promoter regions the investigator is forced to subclone the gene into a more suitable vector. For example the transcription vectors pGEM (SP6 and T7 promoters, Promega) and pBluescript (T3 and T7 promoters, Stratagene) are commonly used. For *in vitro* transcription reactions the plasmid must also be in a linear form. The investigator must use restriction enzymes to linearize the plasmid. Even after the RNA probe has been transcribed successfully from the template, if the RNA probe is greater than 300-400bps in length it should be hydrolyzed into shorter fragments since the optimal upper length for riboprobes for *in situ* hybridization is 150-200bps. Longer probes have poor tissue penetration. Lastly, and perhaps most limiting is the possibility that the investigator may not be able to easily source the cloned gene sequence required for RNA probe generation.

We have attempted to resolve these issues by making available our ONE-STEP™ RNA Probe Synthesis Templates. Using our custom designed templates it is now possible to prepare an optimized RNA hybridization probe to any target gene cheaply and faster than ever before.

Uses

1. Allow for the generation of an optimal 80mer riboprobe® to ANY target gene.
2. We design your custom template so that the transcribed riboprobe® represents the optimal hybridization probe for your target gene.
3. Removes the need to obtain a vector containing your clone/gene of interest.
4. No more sub-cloning, vector amplification, vector linearization when making riboprobes®.



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GeneDetect® ONE-STEP™ RNA Probe Synthesis Templates

Simply reconstitute the lyophilized GeneDetect® ONE-STEP™ RNA Probe Synthesis Template and use directly in your *in vitro* transcription reaction.

Transcribe both radioactive and non-radioactive riboprobes®.

To obtain a sample Protocol Sheet or a sample Specification Sheet, or to order online, go to www.genedetect.com/probetemplates.htm. For enquiries or a quote, email Sales@GeneDetect.com.

How supplied

You are supplied with 50µg of a 100mer PAGE purified double stranded DNA template that can be used for the *in vitro* transcription of an 80mer riboprobe® using any commercial riboprobe® synthesis kit.

By performing *in vitro* transcription at 30°C (instead of 37°C) you can ensure generation of a predominantly full-length riboprobe®.

GeneDetect® ONE-STEP™ RNA Probe Synthesis Templates come standard with an *OptiScript*™ promoter sequence for T7 RNA polymerase. The standard T7 promoter has been redesigned to produce the GeneDetect® *OptiScript*™ promoter which allows for optimal riboprobe® generation by limiting premature abortive transcription. You can specify to replace the T7 *OptiScript*™ promoter with another promoter (either *OptiScript*™ T3 or SP6) when purchasing.

NB: Riboprobe® is a registered trademark of Promega Corporation.

ONE-STEP™ RNA Probe Synthesis Templates

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Custom Antisense & Sense Templates

Custom GeneDetect® ONE-STEP™ RNA Probe Synthesis Templates can be prepared against almost any gene target. Our optimized *OptiScript*™ T7 promoter can be replaced with T3 or SP6 promoters upon request.

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Recombinant adeno-associated viral vectors (rAAV) are quickly establishing themselves as highly versatile gene delivery agents for gene therapy^{1,2} and functional genomic^{3,4} studies. Derived from a non-pathogenic virus from the *Parvoviridae* family, rAAV (rAVE™) vectors can efficiently transfer genes of interest to a broad range of mammalian cell types leading to high levels of stable and long-term expression after a single application. The lack of immunogenicity and no known pathogenicity make rAAV arguably the gene therapy vector of choice for human clinical trials.

Publications using rAVE™ gene delivery reagents have recently appeared in the *Lancet*, *Nature*, *Nature Medicine*, *Science*, *Nature Genetics* and *PNAS*. See our *rAVE™ Library* Section of this Catalog (below) or online at www.genedetect.com/ravelibrary.htm for specific references.



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GeneDetect® rAVE™ Gene Delivery Reagents

Uses for rAAV

As a gene delivery tool rAAV vectors are powerful and extremely versatile. Studied extensively for over a decade, rAAV biology is well understood with the vector having been tested and used successfully in a large range of cell types and tissue. Below is a table listing some of the tissues suitable for transduction by AAV, accompanied by references. We also list a selection of applications whereby the use of rAAV to deliver therapeutic, functional, mutated or inhibitory genes has been highly effective in both research and clinical fields.

Cell Lines

HEK293 [5,6,7,8,18](#)
 HeLa [5,6,18](#)
 RPE [5](#)
 Rho 0 [7](#)
 143B (human) [8](#)
 Fibroblasts [9,10](#)
 COS [11](#)
 Primary cell cultures [10, 55](#)
 Hematopoietic cells [12,13,14](#)
 CHO [14](#)

Tissue

Muscle [15,16,17,18,19,20,38](#)
 Heart [21,22,29,50](#)
 Brain [24,25,26,27,30,41,49,52,54](#)
 Liver [11,23,30](#)
 Lung [28,29,30,31,32](#)
 Retina [19, 33, 34, 35](#)
 Alimentary tract [36, 37](#)
 Spleen [11](#)

In Vivo Applications

Targeted gene therapy of disease
 cystic fibrosis [31,32](#)
 hemophilia [20,38](#)
 Duchenne's Muscular Disease [19,39](#)
 Parkinson's Disease [24,40,41](#)
 Canavan Disease [25,42](#)
 ischemia [18,21](#)
 rheumatoid arthritis [43](#)
 hypertension [50,51](#)

Knock-outs

cre-lox [44,45,46,47,48](#)
 antisense AAV [49,50,51](#)

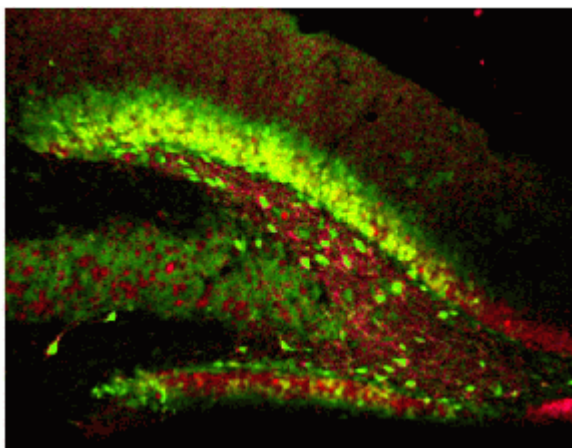
Generation of disease models [45, 52](#)

Functional genomics [3,4,53](#)

Regulatable expression systems [33,53,54](#)

Genetic vaccines [36,55,56,57](#)

Anterograde tracing [58](#)



GFP expression (green) in brain (hippocampus)
 4 weeks after stereotaxic injection of rAVE™-GFP
 vector (2ml, 1×10^8 genomic particles).

Production of rAVE™ Vectors

With many years of rAAV vector experience, we offer the latest generation rAAV stocks optimized for high levels of transgene expression. Generation of our rAVE™ vectors is achieved by a triple transfection of HEK 293 cells with 3 plasmids. The cis-acting AAV plasmid carries the rAVE™ expression cassette containing the gene of interest flanked by the AAV inverted terminal repeats (ITR), while the other two plasmids contain genes encoding structural AAV capsid proteins and other adenoviral helper functions necessary for viral packaging. We then apply our modified affinity column purification methods [59,60](#) to generate highly purified rAVE™ vector stocks.



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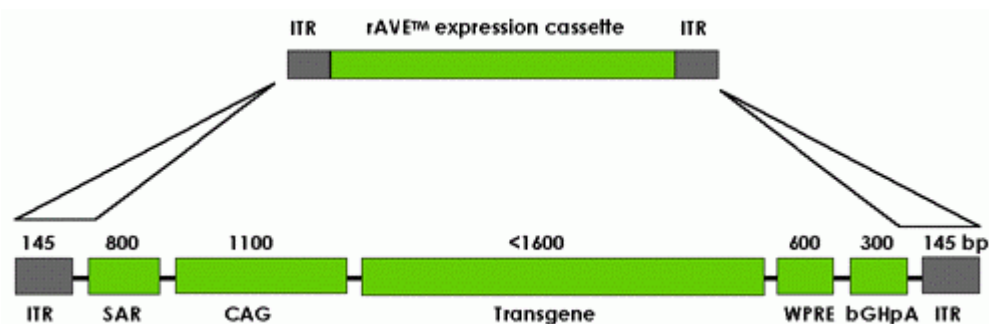
rAAV Serotypes

Recombinant adeno-associated virus can exist as several different serotypes which differ physically in the composition of their capsid protein coat. To date, the majority of rAAV vector work has been based on the AAV serotype 2 (AAV2) and numerous applications of these vectors have been reported. Identification of the heparin sulfate proteoglycan⁶¹ and co-receptor fibroblast growth factor⁶² as receptors that mediate cellular entry for rAAV2 has led to development of rAAV purification methods based on heparin affinity chromatography.

More recently, vectors are being developed from the AAV serotypes 1 and 5 (AAV1, AAV5), that vary in their affinities for certain cell types^{63,64}. Unlike AAV2, the mechanisms by which other AAV serotypes enter host cells are not yet fully understood. Therefore to date no affinity matrices for purification of AAV1 or AAV5 exist. Current purification relies on cesium chloride gradients to isolate the viral particles, the resulting stocks containing a high degree of contaminating proteins. At GeneDetect we are optimizing this process, as well as looking for target receptors on which to base affinity purification of AAV1 and AAV5. In the very near future we hope to bring you these serotype options, produced to the very high standards of purity associated with our AAV2 vectors.

rAVE™ Expression Cassettes

The secret to achieving high levels of gene expression lies in our optimised gene expression cassettes.



Above. Diagrammatic representation of a rAVE™ expression cassette. The rAVE™ cassette is flanked by the AAV inverted terminal repeats (ITR). The transgene is driven by the CAG promoter. Addition of regulatory elements SAR and WPRE enhance transgene expression. HA tags (not shown here) can also be added to either the 5' or 3' end of the gene if required. The size of each of the elements are shown in bp. **As AAV has a packaging limit of 4.7kb, the size of the transgene in this construct must be less than 1600bp (although see the rAVE™ FAQ Section of this Catalog (below) or online at www.genedetect.com/ravefaq.htm).**



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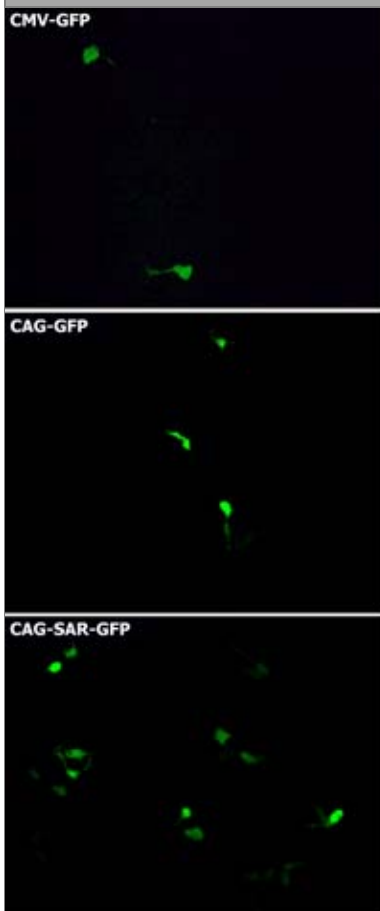
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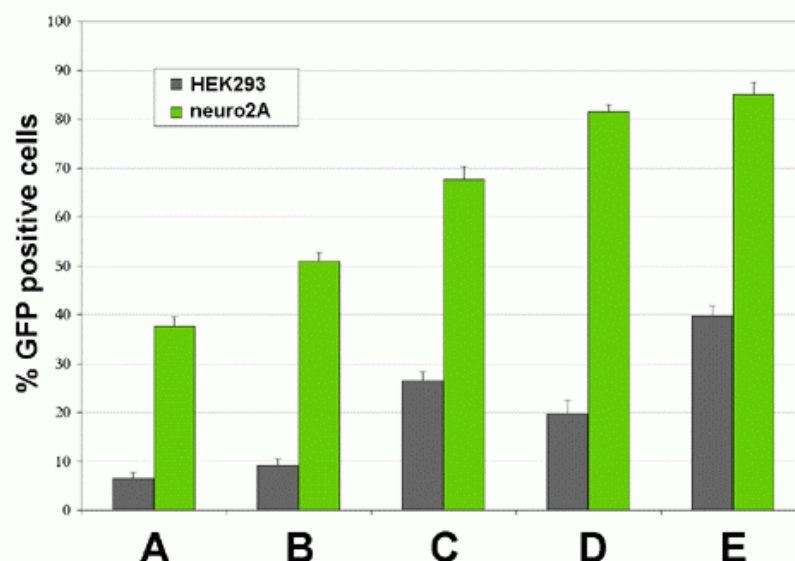
Left: GFP expression in HEK293 cells following transfection with rAVE[™] expression plasmids. Addition of the SAR element improves GFP expression 4-fold.

Why do we rAVE[™] about our expression cassettes? Using a novel stabilized pAAV backbone, our constructs incorporate a hybrid chicken β -actin/CMV enhancer (CAG)⁶⁵ promoter capable of directing very high levels of transgene expression in a wide range of cell types. Inclusion of a cis-acting woodchuck postregulatory regulatory element (WPRE)^{66,67} and the scaffold-attachment region (SAR)^{68,69} allows for increased transgene expression levels.

Below: FACS analysis of GFP expression in HEK293 and Neuro2A cells following transfection with plasmids containing rAVE[™] expression cassettes.

Expression cassettes:

- A. pAM/NSE-GFP-SV40polyA
- B. pAM/NSE-GFP-WPRE-SV40polyA
- C. pAM/EF-GFP-WPRE-BGHpolyA
- D. pAM/CMV-GFP-WPRE-BGHpolyA
- E. pAM/CAG-GFP-WPRE-BGHpolyA



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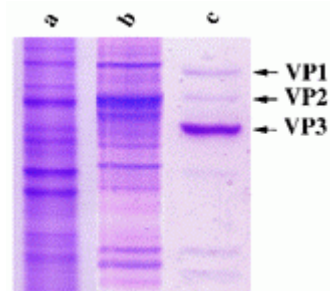
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A frequent problem researchers have is, how am I going to be able to distinguish gene expression produced by my vector from endogenous gene expression or there are no commercial antibodies available to my protein. We've solved this problem for you by including options to incorporate a haemagglutinin (HA) tag sequence either to the 5' or 3' end of your gene of interest enabling easy detection and ability to distinguish endogenous from transgene expression.

rAVE™ vector purity

All rAVE™ vectors are purified to the highest standard using the latest innovations in AAV technology. For our AAV2 vector serotype, this involves affinity purification of the viral particles using immobilized heparan sulfate proteoglycan.

Figure: SDS-PAGE analysis of 3 different grades of rAAV purification. a = crude, b = cesium chloride fractionated, c = affinity purified.



Following purification protocols developed and optimised in-house we can consistently generate rAVE™ vectors to purity levels of 95% or better resulting in a vector product that is more efficient. Unlike crude AAV preparations, affinity purified rAAV2 does not contain transgene contaminants produced during packaging. Such contaminants within a vector stock can lead to problems of pseudo-transduction which often results in transduction misinterpretation⁷⁰. By using rAVE™ vector products investigators can eliminate these problems.

rAVE™ Specification Sheets are available for download at www.genedetect.com/rave.htm by clicking through to the specific product of interest.

Our Production Facility

Our world-class production facility enables us to manufacture rAVE™ vectors with the highest possible stringency, resulting in an extremely pure, high quality product every time. Our production facility is currently in the process of obtaining "Good Manufacturing Practice" or GMP certification, and as such adheres to a rigorous set of standard operating procedures for all stages of rAVE™ vector production. This means that you, the customer, get reliable, reproducible, high purity, high titre vector stocks every time you order! In fact, vector stocks generated in our facility have already been used to treat patients in the first clinical trial in the world to use AAV in the brain^{25,42}, and as such our stocks have been subjected to extensive independent testing. You know when you order rAVE™ vectors, you are buying top quality products for your research!

View our facilities online at www.genedetect.com/ravefacility.htm.



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GeneDetect® rAVE™ Gene Delivery Reagents

rAVE™ Products and Custom Services

At GeneDetect we offer an extensive range of rAVE™ products and services. Our product range is summarized below. Specific catalog items are listed in a separate section further below. To order, visit www.genedetect.com/rave.htm, or email Sales@GeneDetect.com.

We will design and manufacture rAVE™ vectors optimized for your needs in consultation with you and our in-house experts.

1. Packaging Service only. GD1000-RV

We package and affinity-column purify your vector. Simply supply your gene of interest in a pAAV vector ensuring all genetic components to be packaged are flanked by AAV2-specific ITRs.

2. Our Standard Product. GD1001-RV

Our standard rAVE™ vectors are driven by a chicken β -actin promoter combined with a CMV immediate early enhancer and are boosted by the addition of enhancing regulatory elements. All you need to provide is a small quantity of cDNA containing your gene and our technical staff will clone it into our pAAV backbone.

3. Faster delivery at no extra cost. Gateway clone. GD1002-RV

If your gene of interest is located within a Gateway™ plasmid (Invitrogen Corporation) we will soon be able to offer a compatible rAVE™ rAAV backbone which will facilitate faster and easier transfer of your cDNA resulting in quicker production and delivery times with no additional cost to you.

4. We can isolate your gene of interest. GD1003-RV

If you do not have cDNA for your gene of interest we can isolate it from our selection of rodent cDNA libraries. Once in the pAAV backbone, the gene is then packaged into rAAV, harvested and purified.

5. Haemagglutinin (HA) tagging service.

Unlike other suppliers of AAV vectors we can offer an optional gene tagging service that incorporates a haemagglutinin (HA) tag sequence either to the 5' or 3' end of your gene of interest to allow for accurate tracking of your gene product in tissue high in endogenous gene levels.

6. Reporter gene and empty vectors. GD1004-RV

As well as made-to-order rAVE™ products, at GeneDetect we offer a selection of rAVE™ vector expression systems for reporter genes such as GFP, luciferase and lacZ. Such genes and gene products are regularly used as positive controls in many research applications and are ideal for retrograde and anterograde tracing.

Prior to shipping, all rAVE™ vectors are tested for purity to ensure the sample contains no less than 1×10^{10} genomic particles per ml.



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Production Time-Lines

The following production time-lines are estimates and represent "working days". Typically, turn-around will be within 5-6 weeks of receiving your DNA and will depend on the production options you specify.

1. Cloning of gene into AAV, 6 days
2. DNA amplification (construct and helpers), 2 days
3. AAV packaging, 7 days
4. Purification and dialysis, 3 days
5. Titer and quality control, 2 days
6. Addition of HA tag, 10 days
7. Isolation of customer's gene, 10 days

How Supplied

rAVE™ vectors are supplied in 0.3 ml (300µl) of phosphate buffered saline (PBS) containing 1mM MgSO₄.

rAVE™ vectors are supplied to a minimal concentration of 1×10^{10} genomic particles per ml. This relates to the number of AAV particles that have been successfully packaged with the genome to be delivered. During the AAV packaging process many particles are formed lacking the genomic DNA. These lack the ability to transduce the cells they come into contact with and are therefore non-functional.

As a researcher you want functional AAV particles.

Used at 1:100 in media, rAVE™ will infect and express transgene in 30-75% of the treated cells within 3 days, depending on cell type and transgene being used. Therefore we supply the vector product at a minimal guaranteed concentration of genomic particles.

For comparison purposes with our competitors who only quote the number of physical particles they supply, our physical particle titers are typically 5×10^{12} to 1×10^{13} physical particles per ml.

rAVE™ guaranteed minimum supplied:

(0.3ml) > 1×10^{10} genomic particles per ml

Typically equates to:

(0.3ml) > 5×10^{12} to 1×10^{13} physical particles per ml

rAVE™ vectors are shipped at 0-4°C in a Deep Chill™ Shipper and are delivered door-to-door by FedEx. See the *rAVE™ FAQ* Section of this Catalog (below) or online at www.genedetect.com/ravefaq.htm#shipping for more information.



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rAVE indicates that rAVE[™] gene delivery reagents were used.

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GeneDetect® rAVE™ Gene Delivery Reagents

rAVE™ Frequently Asked Questions (FAQs)

1. How are rAVE™ products shipped? Why is shipping so expensive?
2. Why should I incorporate an haemagglutinin (HA) tag sequence?
3. What dose of rAVE™ should I be using for my experiments?
4. How stable are rAVE™ vectors? How should they be stored?
5. What's the difference between physical and genomic particles?
6. Do you have an MSDS for the rAVE™ products?
7. Is there a limit to the size of the gene that can be delivered by rAVE™?
8. My gene of interest is slightly larger than the 1600bp limit for incorporating into your standard rAVE™ vector? Is there an alternative vector that can be used?
9. Why do you recommend the use of mannitol in delivery of rAVE™ to the brain?

rAVE™ FAQ Answers

1. How are rAVE™ products shipped? Why is shipping so expensive?

Innovative global delivery methods save you money.

Although future advances in lyophilization techniques may one day allow for shipment of our rAVE products at room temperature, currently these products require shipment at temperatures below 4°C. Until recently the only feasible way to send these products to you would be to ship using a large amount of dry ice of approx 10kg weight (to the US as an example or 30kg to Europe). There are significant hurdles with this method including cost. To ship a product globally with dry ice using a specialized shipping company will cost approximately USD\$700 making this a prohibitively expensive method. Dry ice itself is a hazardous material. Alternatively while we could appoint in-country distributors to handle the distribution of our products this would also significantly add to the end cost of our products.

New advances in shipping technology however allow for the direct global fulfilment of perishables by GeneDetect without the use of dry ice and allow us to bring down the total cost of shipping your rAVE™ products to you to USD\$299 which includes the cost of customs fees and logistics expenses! This cost is "per shipment" meaning it pays to consolidate multiple rAVE™ orders into one shipment to save on costs.

The technology.

Vacuum insulated panel (VIP) technology (by Dow Chemical Corporation, Midland, MI) is the same technology used in thermos flasks to prevent heat dissipation. Until recently however it was not possible to form a square vacuum panel of the type needed for a shipping box since once air is removed from the panel to form the vacuum, the pressure becomes so great at the corners of the "panel" that the walls collapse. Recently Dow has overcome this issue and is now supplying the Instill VIP core (patent pending).

Deep Chill™ Shipper

GeneDetect uses the new Deep Chill™ Shipper available from PolyFoam Packers Corporation (www.polyfoam.com) to ship your products to you (and of course you get to keep the shipper and re-use it for your own needs). The Deep Chill™ Shipper is a total shipping system that utilizes vacuum insulation panel (VIP) technology to achieve a system insulation value of up to R-36.



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GeneDetect® rAVE™ Gene Delivery Reagents

3. What dose of rAVE™ should I be using for my experiments?

This depends on the application. Generally speaking, the degree of transgene expression will correlate directly to the amount of vector administered. Factors such as 'incubation' time, tissue or cell type, and transgene all effect expression levels. For transducing cultured cells *in vitro* (100-200µl of media per well) we typically find that 1-2µl of a vector stock (at 5×10^{10} genomic particles per ml) added to the media (1:100 dilution) will infect and express in 30-75% of the treated cells within 3 days, depending on cell type and transgene being used.

For *in vivo* applications, again the application will dictate the dose, and should be determined by the investigator. As a guide, for infusion into the brain we typically inject 2µl. To improve spread of the vector at the injection site co-infusion with mannitol is recommended. For more detailed information regarding *in vivo* transduction refer to our rAVE™ Protocols Webpage online at www.genedetect.com/raveprotocols.htm or the following reference: [Mastakov MY, Baer K, Xu R, Fitzsimons H, During MJ. Combined injection of rAAV with mannitol enhances gene expression in the rat brain. Mol Ther. 2001 3\(2\):225-32.](#)

4. How stable are rAVE™ vectors? How should they be stored?

Stability studies carried out in-house show rAVE™ vectors to be highly stable at temperatures of 4°C or less. We recommend aliquoting upon receipt and storing at -80°C. Once an aliquot is thawed it can be stored at 4°C for up to one month.

At room temperature, activity of the vector will reduce with time. Studies conducted indicate a drop in transgene expression in HEK293 cells of 19% after 3 days and 30% after 17 days.

5. What's the difference between physical and genomic particles?

rAVE™ vectors are supplied to a minimal concentration of 1×10^{10} genomic particles per ml. This relates to the number of AAV particles that have been successfully packaged with the genome to be delivered. During the AAV packaging process many particles are formed lacking the genomic DNA. These lack the ability to transduce the cells they come into contact with and are therefore non-functional. As a researcher you want functional AAV particles. Therefore at GeneDetect we supply the vector product at a minimal guaranteed concentration of genomic particles. For comparison purposes with our competitors who only quote the number of physical particles they supply, our physical particle titers are typically 5×10^{12} to 1×10^{13} physical particles per ml.

rAVE™ guaranteed minimum supplied:

(0.3ml) > 1×10^{10} genomic particles per ml

Typically equates to:

(0.3ml) > 5×10^{12} to 1×10^{13} physical particles per ml

6. Do you have an MSDS for the rAVE™ products?

Yes. Download the rAVE™ MSDS online at www.genedetect.com/Merchant2/rAVE_MSDS.pdf.



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GeneDetect® rAVE™ Gene Delivery Reagents

7. Is there a limit to the size of the gene that can be delivered by rAVE™?

We must stress that AAV has a packaging limit and that for incorporation into the full SAR-CAG promoter construct the gene must be no larger than 1600bp. If your gene is larger it may be incorporated into a smaller construct by removing some of the stabilising elements such as WPRE or SAR (see below).

8. My gene of interest is slightly larger than the 1600bp limit for incorporating into your standard rAVE™ vector? Is there an alternative vector that can be used?

Possibly. rAAV has a packaging capacity of 4.7kb. Given the size of the promoter and the regulatory and stabilising elements present in our standard vector, a 1600bp transgene is pretty much the limit allowed. By removing some or all of the additional elements (such as WPRE or SAR) the space available for the transgene will be larger. However these elements are beneficial and you run the risk of losing some of the vector's efficiency.

9. Why do you recommend the use of mannitol in delivery of rAVE™ to the brain?

Mannitol is a hyper-osmotic compound which has the ability to transiently disrupt the blood brain barrier following administration. As result we have found spread of the rAVE™ vector when co-infused with mannitol improves dramatically. Depending on your application this may be of benefit.



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GeneDetect® rAVE™ Reporter Vectors

rAVE™ Reporter Vectors

Reporter gene vectors (GFP, luciferase, LacZ, empty). Product Code = GD1004-RV. We offer a selection of rAVE™ vector expression systems for the reporter genes GFP, luciferase and lacZ. Such genes and gene products are regularly used as positive controls in many research applications and are ideal for retrograde and anterograde tracing. rAVE™ Reporter gene vectors are driven by our standard chicken β -actin/CMV promoter. With the exception of rAVE-lacZ, the rAVE™ reporter gene vectors also contain the WPRE regulatory element. Given the size of the lacZ gene and AAV packaging restraints, the rAVE-lacZ vector lacks this element and is driven by CMV only. All rAVE™ Reporter gene vectors are affinity purified providing you with the highest quality vector available. As well as reporter gene vectors these vectors are ideal control vectors and are invaluable as tools for retrograde and anterograde tracing studies.

Optional addition of Haemagglutinin tag to either 5' or 3' available. We offer this gene tagging service that allows for accurate tracking of your gene product in tissue high in endogenous gene levels.

To order, visit www.genedetect.com/rave.htm, or email Sales@GeneDetect.com.

GeneDetect® rAVE™ Custom Vectors

rAVE™ Custom Vectors

Basic service with customer supplying cDNA. Product Code = GD1001-RV. Our standard rAVE™ vectors are driven by a chicken β -actin promoter combined with a CMV immediate early enhancer and are boosted by the addition of enhancing regulatory elements. All you need to provide is a small quantity of cDNA containing your gene and our technical staff will clone it into our pAAV plasmid and then package it into AAV. If required a C- or N-terminal HA tag may be incorporated (see below).

Basic service using an Invitrogen Gateway clone. Product Code = GD1002-RV. If your gene of interest is located within a Gateway™ plasmid (Invitrogen Corporation) we will soon be able to offer a compatible rAVE™ rAAV backbone which will facilitate faster and easier transfer of your cDNA resulting in quicker production and delivery times with no additional cost to you.

Basic service plus isolation of customer's cDNA. Product Code = GD1003-RV. If you do not have cDNA for your gene of interest we can isolate it from our selection of rodent cDNA libraries. Once in the pAAV backbone, the gene is then packaged into rAAV, harvested and purified.

Optional addition of Haemagglutinin tag to either 5' or 3' available. We offer this gene tagging service that allows for accurate tracking of your gene product in tissue high in endogenous gene levels.

To order, visit www.genedetect.com/rave.htm, or email Sales@GeneDetect.com.

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