

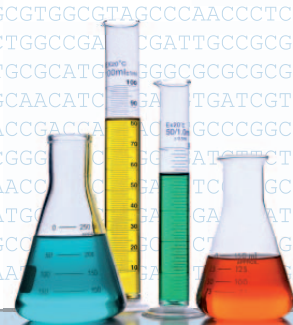
CGCCGA... CTGGCCCTCGACGCGC
 GAGCCGG... TTGGTGA...ACTGATACGAAGC
 GTGAACGGCTTGGCCAG...AGCGCCACGCGGCCGGCGTTCGGTTGTC
 CACCGACGATGGCCACTTCTCGCCAGCGTTCGACGCGCATCGACG
 CAGGCCCTCGCCACGAGGACCGCGGTGCCGGTTGGCCAGCGC
 CTCATAGCGCAGCGCTTCGGCCCTTACCGCGCAGGGCCAGC
 ATGGTAGCGATGCGTTTC...CCGAAGGCAACGCTAAT
 TGAAAGGC...TCACG...CGGATCAGCGCCGCC
 GATGAA...TG...GGCGCCATGCGCAG
 GACAC...TTCG...ATCAGCGTGGATGAT
 TCTGCT...TTCG...TCGCCACTCGGTGCC
 CAGGCGCA...TCGTGGGTCC...TGGCGGAACAGCGTCC
 GAGGAGAACACGCGCCAGCACGGTGAACCTGCTTGAGACGGCA
 CGCCACGCGCAC...TATTGGCCAGTTCCGTGGAG...TGC
 CTGGTTGGCGAT...TGGGCCT...TCGGCGGC
 TGGGCCGCCAC...TGCCACA...CTTCCTT
 TGACTTCGATGT...TCGACAGAT...CCGAT
 GCCAAGCGCGATG...TCGAAATCTC
 ATCTGCCATTCGTAAGGAAAGTTCAAGAGA...GTCC
 CGCCGCCCAGCCGGGAGTTTACAATCTCCC...AACCA
 CGCTCGGACGATGTCGTGCCCGTGCCTG...TTGGC
 GAGATGCACGACGATCCCTACCTGCGCAAC...TGCCG
 CCTTCATGCGGCTGGCGGATCACC CGGGAT...CGCCCG

CTGTGGACGAGGCAGGCATCACGATCGTA...CCCCCA
 CGGTGCGCGCCACC GGCCGCAAT...TCGAAT...CTGGATG
 CTGGCACGGGCACCCGGTGARCG...GGCGCGGAGGCCGAT
 GCGCGCAAGCTGGCTGACACGGTGC...CCGACGACCCGTTTC
 GCTTGCCCGACATCGCTGATACCG...GCTCCGGTATGACGCTG
 GGAGCGAATGCACACGCTCG...CGCC...GCT...ASC
 GGC...AAACC...TTGCC...GTT...GTACACGAGCCGACCTGCGCAA
 TGTCCGACCTGGCCATGGTCTCTCGACCG...GCGCTGACATCACATTGACGA
 CCTTTTCCGACGAACACGCAAAGGCC...GCTCGGGTCTGCATCCGACG
 CGAACTGGCCACGGACCTGCCCGAACTGCGCGCGGCCAGCATGAAAGGTA
 AATCGCAAGCTGCTGATCGTGGCTGACTAT...TGGGATGGCGCTACGGCCTG
 TGGACTACATCGTGC GAACCGCTT...CT...GGGCTGACGCCGGAG
 CACGGTCGACAACGGCATCGCCAG...CAGCCGCCAACGCAC
 GAGACACTGCCCGACGCGGGCGGTG...CAGCCGGGATGCGA
 ACGTGCTGCTGGCCCTGCGCGCTG...CGTGTACACCCAG
 GCTTGGCACGGTAGCCGACGTGGT...CAACCGGATTCTGG
 CCCGCGTGGCGCCACTGTTCCGTG...GCCCGCGGCCAAA
 ...AT...GTGCCTGCTGACCGAC

GCGGGCTCGCTCAGGCCGCGGATGCGC
 CCAGCGAGCGGTTGCGCACGATATTGC
 GAGCCCGCCCAGCACGTGCAGCAGTGT
 CCGCGCAGGACTTCGACGTCCAGGCCGCCCTGTTTGAACCGCTTGGT
 CGTGGGTGCCCGCTTGAATGAGGCTTCGGGGAGCAG...ATGATACC
 TCGGGTAGATCGTGGCCAGCGCAGCCAGCACGA...ATGATACC
 GAAGTAGATGTCTTGGGCAGGAACCTGCACAT...CGTTCGA
 AATACGG...GAT...GATGAAGCCGATG...GCTTGGAC
 GAT...GT...GTACAGGTCA...AGCGTG
 ...T...TGGCGGCAACAGTTCGGGT
 ...TGCATGTCTGCAGCTT
 ...GAACTCGTAGTGACCC
 ...GAGCATCACCTGT
 ...TGCCGGCGCGGAA
 ...TGCATCATGGCC
 ...GGCGGCGCCGA
 ...AGGGCGGCCAC
 ...GCGCCAGCCG
 ...GGGAAACTGG

TTGGCATCGCCACGTTGT
 TTCCTTCTCGCGTAGCGCC
 GATTTGCCCGAACCCGGAAG
 TGGCCATCGCCACGTTGT
 TTCCTTCTCGCGTAGCGCC
 GATTTGCCCGAACCCGGAAG
 CCGCGCAGGACTTCGACGTCCAGGCCGCCCTGTTTGAACCGCTTGGT
 CGTGGGTGCCCGCTTGAATGAGGCTTCGGGGAGCAG...ATGATACC
 TCGGGTAGATCGTGGCCAGCGCAGCCAGCACGA...ATGATACC
 GAAGTAGATGTCTTGGGCAGGAACCTGCACAT...CGTTCGA
 AATACGG...GAT...GATGAAGCCGATG...GCTTGGAC
 GAT...GT...GTACAGGTCA...AGCGTG
 ...T...TGGCGGCAACAGTTCGGGT
 ...TGCATGTCTGCAGCTT
 ...GAACTCGTAGTGACCC
 ...GAGCATCACCTGT
 ...TGCCGGCGCGGAA
 ...TGCATCATGGCC
 ...GGCGGCGCCGA
 ...AGGGCGGCCAC
 ...GCGCCAGCCG
 ...GGGAAACTGG

LIFE SCIENCE Product Catalogue 2013



Genomics

Proteomics

Immunology

Cell Biology

Separation

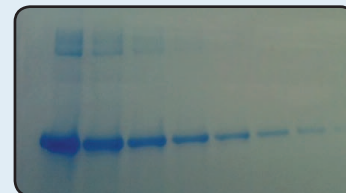
New Products for 2013

Genomics

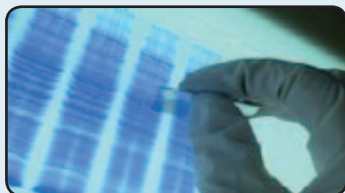
SafeBLUE Protein Stain

This new single step protein stain allows visualisation of protein gels in 10 minutes and is compatible with downstream applications.

----- Page 15



Proteomics



ReadyCast Precast Protein Gels

Our high resolution precast gels for SDS-PAGE can be stored for up to 2 years without any loss of performance.

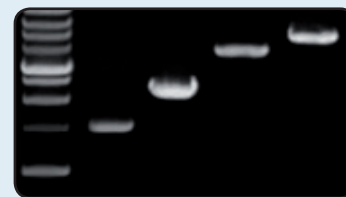
----- Page 16

Immunology

BesTaq DNA Polymerase

BesTaq offers high fidelity (50X greater than standard Taq) and is engineered for use with the most difficult templates.

----- Page 9



Cell Biology



EasyScript Reverse Transcriptase

EasyScript is a reliable, high yield RTase with reduced RNA degradation through the elimination of RNase H activity.

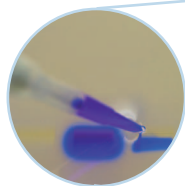
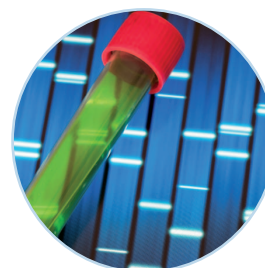
----- Page 10

Separation

Table of Contents

Genomics

Electrophoresis - Nucleic Acid Stains.....	4
Electrophoresis - Molecular Weight Markers.....	5
Electrophoresis - Agaroses.....	6 - 7
Electrophoresis - Buffers.....	8
PCR/Amplification - Polymerase & dNTPs.....	9
PCR/Amplification - RT-PCR Products.....	10
Purification - Spin Columns.....	11
Purification - DNA Cleanup Kits.....	12
Purification - DNA Plasmid & Genomic Kits.....	13
Purification - RNA & All-in-One Kits.....	14

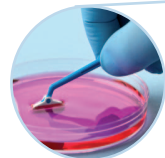
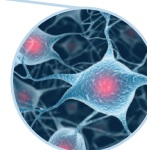


Proteomics

SDS-PAGE - Protein Stains.....	15
SDS-PAGE - Precast Gels.....	16
SDS-PAGE - Acrylamide Products.....	17
SDS-PAGE - SDS & Buffers.....	18
Western Blotting - ECL Reagent.....	19

Immunology

Protein Labelling - Antibody Labelling Kits.....	20
Cell Immortalisation - Lentiviral Systems.....	21 - 22
Cloning - Transfection Reagents.....	23
RNAi - siRNA & miRNA Products.....	24 - 25



Cell Biology / Culture

Cell Storage - Cryopreservation Media.....	26 - 27
Cell Viability - Viability/Proliferation Assays.....	28 - 29
Cell Culture - Culture Media.....	30
Cell Culture - Hollow Fiber Apparatus.....	31

Separation

Lab Dialysis - Tubing & Accessories.....	32
Lab Dialysis - Ready-to-Use Devices.....	33
Adsorbents - Silica & Alumina.....	34

Index

..... 35

Genomics

Proteomics

Immunology

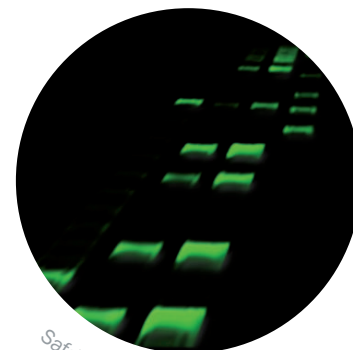
Cell Biology

Separation

SafeView DNA Stain

The Safe Alternative to Ethidium Bromide

- ✓ Non-carcinogenic DNA/RNA Stain
- ✓ Used in the Same Way as Ethidium Bromide
- ✓ Compatible with Standard Molecular Biology Applications



SafeView visualised using
optional green filter

SafeView is a safe nucleic acid stain for the detection of dsDNA, ssDNA and RNA in agarose gel. This dye replaces Ethidium Bromide (toxic, potential mutagen) commonly used in agarose gel electrophoresis.

Safe to Use

SafeView is non-carcinogenic and causes significantly fewer mutations in the Ames test. SafeView also tests negative in both the mouse marrow chromophilous erythrocyte micronucleus test and mouse spermary spermatocyte chromosomal aberration test.

Sensitive & Convenient

SafeView emits green fluorescence when bound to dsDNA, ssDNA and RNA and has a fluorescence excitation maxima when bound to nucleic acid at approx.290-320nm, emitting at 490nm.

Also Available

SafeWhite DNA Stain

DNA Stain incorporated into loading buffer

SafeWhite Utilises the same technology as SafeView but in the form of a convenient 6x ready-to-use loading buffer!

**62%
cheaper**

than Invitrogen Sybr®Safe stain*

Ordering Information

Cat #	Description	Pack Size	Price
NBS-SV1	SafeView DNA Stain	1ml	£42.00
NBS-SV5	SafeView DNA Stain	5 x 1ml	£179.00
NBS-SW1	SafeWhite DNA Stain	1ml	£42.00
NBS-SW5	SafeWhite DNA Stain	5 x 1ml	£179.00

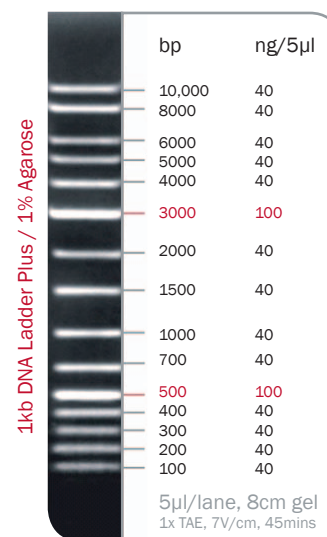
* Invitrogen Sybr®Safe DNA gel stain (400µl), £45.39 - www.invitrogen.com, 02/01/2013.

DNA Ladder Plus

Ready-to-Use Ladders for Electrophoresis

- ✓ Bright, Sharp Bands for Accurate Sizing
- ✓ Precise DNA Concentrations
- ✓ Ready-to-Use

Introducing our new range of ready to use DNA ladders for electrophoresis. These extended range ladders are available in 50bp, 100bp and 1kb size and offer precise standard and bright reference bands. All fragments are precisely mixed and quantified during production and the ladders are supplied premixed with loading dye.



50bp 10,000 bp

Ladder Size Ranges

50bp Ladder Plus	50 - 1000bp
100bp Ladder Plus	100 - 3000bp
1kb Ladder Plus	100 - 10,000bp

Ordering Information

Cat #	Description	Pack Size	Price
NBS-LP50	DNA Ladder Plus, 50bp	50µg	£30.00
NBS-LP100	DNA Ladder Plus, 100bp	50ug	£30.00
NBS-LP1K	DNA Ladder Plus, 1kb	50ug	£30.00

Genomics

Proteomics

Immunology

Cell Biology

Separation

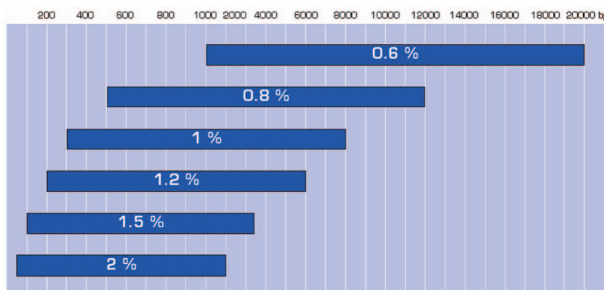
Agarose - Low EEO

All-Purpose Agarose for Electrophoresis

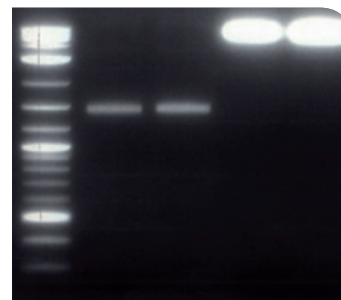
- ✓ Low EEO (<0.13)
- ✓ High Mechanical Strength
- ✓ Low Absorption of Staining Reagents

Agarose - *Low EEO* is an all-purpose agarose designed for nucleic acid analytical work, blotting and routine applications. This agarose has a low EEO allowing for shorter electrophoretic runs without compromising resolution, while the gel has a high mechanical resistance for easier and more reliable handling.

Agarose - *Low EEO* has low absorption of staining agents and high thermal stability due to high hysteresis (difference between gelling and melting temperatures), it also has excellent transparency of the gel, high visibility and exhibits low DNA binding and gel background.



Left: Separation Range Chart for Agarose - Low EEO
Separation ranges depend on the choice of buffer. These ranges were determined in presence of TAE buffer. Migration in TBE buffer is slower, therefore lower concentrations can be used to obtain similar ranges.



1% Agarose - Low EEO Gel
(stained using EtBr)

**61%
Cheaper**
than Lonza SeaKem® LE Agarose*

Top Tip

Agarose - *Low EEO* has a gel strength of >2500 when used at 1.5% concentration and can therefore be used in place of a speciality high strength agarose!

Ordering Information

Cat #	Description	Pack Size	Price
NBS-AG100	Agarose - <i>Low EEO</i>	100g	£42.00
NBS-AG500	Agarose - <i>Low EEO</i>	500g	£159.00

* Lonza Seakem® LE Agarose (100g), £110.00 - www.lonza.com, 02/01/2013.

Agarose - High Resolution

High Resolution Agarose for Small Fragments

- ✓ Maximum Resolution of Small DNA Fragments and PCR Products
- ✓ Improved Clarity of the Gel, Enhancing Visibility
- ✓ High Gel Strength - Allows Use in Blotting

Agarose - *High Resolution* is a molecular screening agarose that offers fine resolution of small nucleic acid fragments and PCR products. This agarose offers better handling than comparable products because of a stronger gel structure and higher gel strength - therefore the chances of a gel breaking or cracking when handled is greatly minimised, even with lower gel concentrations. Agarose - *High Resolution* is nuclease free and exhibits low DNA binding and gel background.

Agarose - Low Melting

High Sieving Agarose for Low Melt Applications

Agarose - *Low Melting* is a low melting temperature agarose suitable for preparative electrophoresis and the analysis/recovery of small DNA fragments for downstream applications.

This agarose is GQT (Genetic Quality Tested) certified ensuring that in-gel applications can be performed in remelted agarose, avoiding difficult DNA extraction steps. It is also suitable for digestion by agarase enzymes, making it very easy to recover small DNA fragments for cloning or enzymatic processing.

Agarose - *Low Melting* is nuclease free and exhibits low gel background.

- ✓ High Sieving Capacity
- ✓ Suitable for In-Gel Applications

Designed for:

Preparative electrophoresis
Electrophoresis of DNA fragments < 1000bp
In-Gel enzymatic processing (digestion, ligation, PCR)
Analysis and recovery of small DNA fragments for further applications

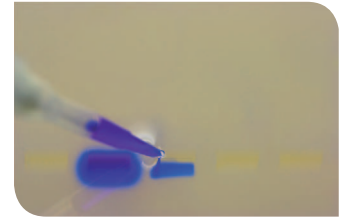
Ordering Information

Cat #	Description	Pack Size	Price
NBS-HR100	Agarose - <i>High Resolution</i>	100g	£169.00
NBS-LM100	Agarose - <i>Low Melting</i>	100g	£189.00

Ethidium Bromide

Ethidium Bromide, Dropper Bottle

Our Ethidium Bromide is provided in a ready-to-use dropper bottle (0.625mg/ml) for maximum convenience and safety. Use one drop per 50ml of agarose gel and running buffer or staining solution.



Genomics

Proteomics

Immunology

Cell Biology

Separation

Agarose Electrophoresis Buffers

TBE (TRIS-Borate-EDTA) Buffer

Tris-Borate EDTA (TBE) is used both in PAGE and agarose gel electrophoresis for DNA and proteins. Our TBE is supplied as 10x concentrate (dilute to strength) and is used within the gel and as a running buffer. We also have TBE buffer available as a premixed powder for added convenience.

TAE Buffer

Tris-Acetate EDTA (TAE) is used as a running buffer in both PAGE and agarose electrophoresis. Our TAE is supplied as 25x and 50x concentrates which are diluted to working strength. We also have TAE buffer available as a premixed powder for added convenience.

Ordering Information

<i>Cat #</i>	<i>Description</i>	<i>Pack Size</i>	<i>Price</i>
NBS-DB05	Ethidium Bromide, Dropper Bottle (0.625mg/ml)	5ml	£19.00
NBS-DB10	Ethidium Bromide, Dropper Bottle (0.625mg/ml)	10ml	£31.00
A0014-1PK(1L)	TBE Buffer, 10x Premixed Powder	1pk (1L)	£16.50
A0014-1PK(4L)	TBE Buffer, 10x Premixed Powder	1pk (4L)	£28.00
NBS-6000-10	TBE Buffer, 10x Solution	1L	£28.00
NBS-6000-50	TBE Buffer, 10x Solution	5L	£64.00
TB8898-1PK	TAE Buffer, 25x Premixed Powder	1pk (1L)	£33.00
A0023-1L	TAE Buffer, 25x Solution	1L	£25.00
NBS-6001-10	TAE Buffer, 50x Solution	1L	£41.00
NBS-6001-50	TAE Buffer, 50x Solution	5L	£108.00

PCR/Amplification Products

BesTaq DNA Polymerase

BesTaq DNA polymerase is a newly engineered polymerase with superior fidelity and robustness. The unique, single-enzyme structure is optimised for difficult templates and results in enhanced yield, speed and amplification length.



BesTaq is designed for all PCR applications and particularly suited for cloning difficult (both AT- and GC-rich) and long amplicons. It has one of the highest fidelities available on the market (over 50X better than Taq DNA polymerase) and will generate blunt-end products with 5'-3' polymerase activity and 3'-5' proofreading exonuclease activity.

dNTPs

Our high quality dNTPs (mixtures and sets) are free of DNase and RNase contamination as determined by incubation of the 4 dNTP's with radioactive substrates.

The purity of the dNTPs are determined by HPLC with the minimum passing specification for the triphosphate content being 99%, all lots are performance tested with Sequenase, Taq DNA polymerase, pfu DNA polymerase and T7 DNA polymerase.

Ordering Information

Cat #	Description	Pack Size	Price
NBS-BT1	BesTaq DNA Polymerase	100U	£93.00
NBS-BT4	BesTaq DNA Polymerase	400U	£315.00
NBS-NTP10	dNTP Mixture (10mM)	0.5ml	£25.00
NBS-NTP25	dNTP Mixture (25mM)	0.5ml	£55.00
NBS-NTP01	dNTP Set (100mM each)	4x0.1ml	£34.00
NBS-NTP05	dNTP Set (100mM each)	4x0.5ml	£145.00
NBS-NTPU1	dNTP/dUTP Mixture	1ml	£15.00
NBS-TAQ05	Taq DNA Polymerase (5U/ul)	500 U	£48.00
NBS-TAQ10	Taq DNA Polymerase (5U/ul)	1000 U	£96.00
MB1193-4X1.5ML	MgCl ₂ , 25mM	4x1.5ml	£15.00

Also Available

Spin Column PCR Purification Kit
see page 11

High yield DNA Spin Column kit,
competitively priced and ready-to-use!

Genomics

Proteomics

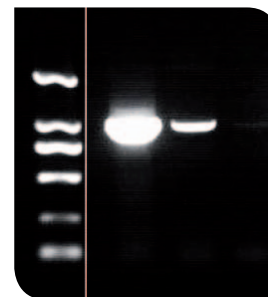
Immunology

Cell Biology

Separation

EasyScript RTase

Optimised Reverse Transcriptase Enzyme



- ✓ Reliable - Will work for any cDNA synthesis application
- ✓ Flexible - Suitable for both total RNA or poly(A) + RNA templates
- ✓ High Yield - Superior to competitor RNase enzymes

EasyScript RTase is derived through a series of rational and iterative 'mutation - function' optimisations and represents a much superior version of the native RTase enzyme. Deliberate mutations within the RNase H domain of EasyScript mediate abrogation of the RNase H activity associated with the enzyme. Removal of RNase H activity helps to prevent RNA degradation during first strand cDNA synthesis thereby allowing maximal performance in cDNA synthesis.

EasyScript Plus

EasyScript is also available in 'plus' form which has been bioengineered to perform optimally at elevated temperatures (50-55°C). EasyScript Plus represents a molecular innovation that offers an easy and reliable one step solution to cDNA synthesis from difficult RNA templates. Employment of a higher than average reaction temperature mitigates the problems associated with secondary structures and high GC content in the starting template. Additionally this feature also allows for synthesis of longer transcripts, in this case, up to 15kb in length.



Above - EasyScript RTase elongation ability

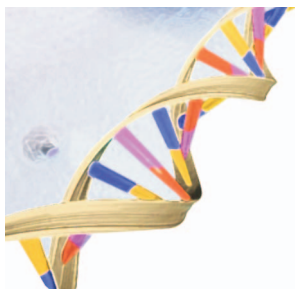
Ordering Information

Cat #	Description	Pack Size	Price
NBS-RT	EasyScript Reverse Transcriptase	100 rxns	£129.00
NBS-RT-P	EasyScript Plus Reverse Transcriptase	100 rxns	£215.00
NBS-CD	EasyScript cDNA Synthesis Kit	100 rxns	£207.00
NBS-CD-P	EasyScript Plus cDNA Synthesis Kit	100 rxns	£308.00

Spin/96-well Purification

DNA Cleanup Kits - Page 12
 Plasmid & Genomic Kits - Page 13
 RNA Miniprep & All-in-One Kits - Page 14

3 for 2
 on all Spin Column & 96-well Kits*



Our Spin Column and 96-Well Kits have been designed for fast, high quality extraction & purification of DNA, RNA & Protein from a variety of sources.

In addition to our popular DNA Cleanup kits (outlined on page 12) we also have an extensive range of Plasmid & Genomic kits (page 13) and RNA & All-in-One kits (page 14).

**Featured
 for
 2013**

- Spin Column Genomic DNA Miniprep Kit*
 — Page 13
- Spin Column All-in-One Miniprep Kit*
 — Page 14
- Spin Column RNA Miniprep Kit*
 — Page 14

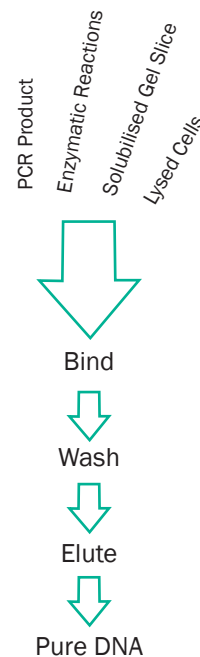
Ordering Information

Cat #	Description	Pack Size	Price
NBS-5005	Mini Spin Columns (DNA)	100 pcs	£27.00
NBS-5008	Mini Spin Columns (RNA)	100 pcs	£29.00
NBS-5006	96-Well Filter Plates	12 pcs	£41.00

* Cheapest item free, does not include separate Spin Columns (DNA or RNA) or plates.

Mini Spin Columns

We now supply spin columns/collection tubes separately, these are compatible with our own range of Spin Column kits as well as those of all other brands!



Genomics

Proteomics

Immunology

Cell Biology

Separation

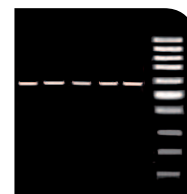
DNA Cleanup Kits

3 for 2

on all Spin Column & 96-well Kits*

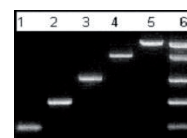
PCR Purification Kit

This kit utilises membrane technology which selectively adsorbs up to 10µg PCR products or DNA fragments in the presence of a specialised binding buffer. Primers (<40-mer), nucleotides, enzymes, mineral oil and all other impurities are not able to bind and are hence eliminated from the column. PCR products or DNA fragments are readily eluted in the included buffer.



Gel Extraction Kit

This kit provides a simple and efficient method for DNA extraction from agarose gel. It is also an ideal tool to desalt the solution as well as to remove residual organic solvents or unincorporated nucleotides or primers (<40-mer) from reaction mixture containing DNA.



Reaction Cleanup Kit

This DNA Cleanup kit provides a simple, efficient method for purification of DNA fragments from various enzymatic reactions (eg. cDNA synthesis, ligation, restriction digestions, tailing etc.). It is also an ideal tool to desalt the solution of DNA as well as to remove residual organic solvents or unincorporated nucleotides or primers (<40-mer) from reaction mixture.



Ordering Information

Cat #	Description	Pack Size	Price	Cat #	Description	Pack Size	Price
NBS-363	Spin Column PCR Purification Kit	50 preps	£62.00	NBS-3652	96-Well PCR Purification Kit	2 plates	£221.00
NBS-664	Spin Column PCR Purification Kit	250 preps	£269.00	NBS-365	96-Well PCR Purification Kit	5 plates	£442.00
NBS-353	Spin Column Gel Extraction Kit	50 preps	£62.00	NBS-3692	96 Well Reaction Cleanup Kit	2 plates	£221.00
NBS-654	Spin Column Gel Extraction Kit	250 preps	£269.00	NBS-369	96 Well Reaction Cleanup Kit	5 plates	£442.00
NBS-367	Spin Column Reaction Cleanup Kit	50 preps	£62.00				
NBS-668	Spin Column Reaction Cleanup Kit	250 preps	£269.00				

See Page 13 for Plasmid and Genomic DNA Kits and Page 14 for our All-in-One Kit.

* Cheapest item free, does not include separate Spin Columns (DNA or RNA) or plates.

Genomics

Proteomics

Immunology

Cell Biology

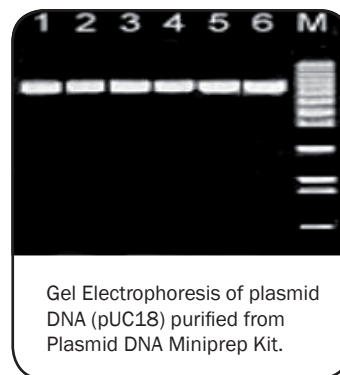
Separation

DNA Plasmid/Genomic Kits

Plasmid DNA Miniprep Kit

Fast and Simple Preparation of high quality DNA

This kit provides a simple and efficient method for mini plasmid DNA purification from bacterial culture. Plasmid DNA is selectively adsorbed by the spin column and impurities such as proteins, salts and nucleotides are washed away. The whole procedure takes about 12 minutes and no phenol/chloroform or ethanol precipitations are required.



Genomic DNA Miniprep Kit

Purification of gDNA from Multiple Sample Sources

This kit allows for the purification of high quality genomic DNA with a molecular weight >20kb. The spin columns provide a fast and easy purification with the purified DNA ideally prepared for standard downstream reactions, including PCR, restriction digestions and hybridisations.

3 for 2
on all Spin Column & 96-well Kits*

Ordering Information

Cat #	Description	Pack Size	Price	Cat #	Description	Pack Size	Price
NBS-413	Spin Column Plasmid DNA Miniprep Kit	50 preps	£62.00	NBS-4152	96 Well Plasmid DNA Miniprep Kit	2 plates	£221.00
NBS-614	Spin Column Plasmid DNA Miniprep Kit	250 preps	£269.00	NBS-415	96 Well Plasmid DNA Miniprep Kit	5 plates	£442.00
NBS-467	Spin Column Yeast Plasmid Miniprep Kit	10 preps	£36.00	NBS-92032	96 Well Viral DNA Miniprep Kit	2 Plates	£820.00
NBS-468	Spin Column Yeast Plasmid Miniprep Kit	50 preps	£142.00	NBS-92043	96 Well Single Colony Plasmid Miniprep Kit	2 Plates	£221.00
NBS-88503	Spin Column Genomic DNA Miniprep Kit	50 preps	£156.00	NBS-92044	96 Well Single Colony Plasmid Miniprep Kit	5 Plates	£442.00
NBS-88505	Spin Column Genomic DNA Miniprep Kit	250 preps	£622.00	NBS-1292	96 Well Bacterial Genomic DNA Miniprep Kit	2 Plates	£269.00
NBS-71918	Spin Column Endotoxin-Free Miniprep Kit	50 preps	£174.00	NBS-1295	96 Well Bacterial Genomic DNA Miniprep Kit	5 Plates	£615.00

* Cheapest item free, does not include separate Spin Columns (DNA or RNA) or plates.

Genomics

Proteomics

Immunology

Cell Biology

Separation

All-in-One Miniprep Kit

- ✓ All-in-One Purification of DNA, RNA and Protein from One Sample

The *Spin Column All-in-One Miniprep Kit* allows you to simultaneously isolate DNA, RNA and Protein from a single sample. Purification is achieved within 1 hour and all standard downstream applications are supported.



Simple & Efficient RNA Extraction from Bacterial Culture

RNA Miniprep Kit

- ✓ High Yield & Reproducibility
- ✓ Purification in Under 30 mins

Our *Spin Column RNA Miniprep Kit* allows for high quality purification of RNA from animal cells and tissues. The gDNA eliminator column allows DNA contamination to be eliminated during RNA purification so the purified RNA is ideally prepared for downstream applications that require little to no DNA contamination (eg. Real time PCR).

3 for 2
on all Spin Column & 96-well Kits*

Ordering Information

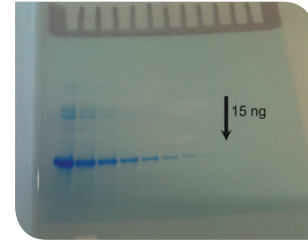
Cat #	Description	Pack Size	Price
NBS-88003	Spin Column All-in-One Miniprep Kit	50 preps	£186.00
NBS-88203	Spin Column DNA/RNA Miniprep Kit	50 preps	£168.00
NBS-88133	Spin Column RNA Miniprep Kit	50 preps	£186.00
NBS-88136	Spin Column RNA Miniprep Kit	250 preps	£742.00

* Cheapest item free, does not include separate Spin Columns (DNA or RNA) or plates.

SafeBLUE Protein Stain

Safe, Single Step Protein Stain

- ✓ The Most Sensitive Single Step Stain Available!
- ✓ No Mixing, Fixing, Washing or Destaining Required
- ✓ Compatible with Mass Spectrometry



SafeBLUE is a safe and highly sensitive single step protein stain. Simply run your protein gel, add the stain and watch your bands appear in a few minutes. There is no need to wash or destain and the background is crystal clear.

Protocol

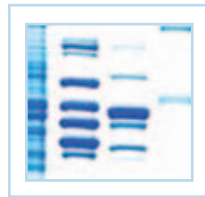
1: Run Gel



2: Add SafeBLUE*



3: Remove Gel from Stain



- * Use just enough to cover gel (typically around 20ml)
 ** Takes 10-15mins to see 60ng, longer for low conc. proteins

Results in 10 Minutes....

Staining of low concentration proteins (60ng) occurs inside of 15 minutes with sensitivity increasing down to 10ng if left for an hour. The signal generated by SafeBLUE is linear, enabling true quantification of your sample. It is impossible to over-saturate using SafeBLUE, so if preferred you can incubate overnight without harmful effects.

SafeBLUE contains doesn't contain any harmful chemicals or acids, so is much safer than standard protein dyes - it can even be disposed of down the sink after staining!

The Safe Protein Stain

SafeBLUE is completely non-toxic and can be safely disposed of down the sink.

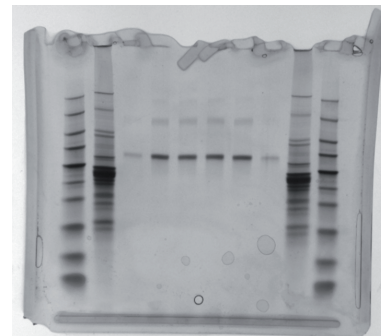
Ordering Information

Cat #	Description	Pack Size	Price
NBS-SB1L	SafeBLUE Protein Stain	1L	£99.00
NBS-SB10L	SafeBLUE Protein Stain	10L	£720.00

ReadyCast Protein Gels

High Performance Precast Protein Gels

- ✓ 2 Year Shelf Life
- ✓ Gels Individually Wrapped
- ✓ Custom Gel Concentrations Available



ReadyCast gels provide the highest performance precast protein gels available with superior resolution for nearly all apparatus. They are available in both fixed concentration and gradient gel form.

The Gel

ReadyCast gels are individually wrapped and have a shelf life of two years at 4°C or six months at room temperature. The gels offer superior resolution compared to rival products and are compatible with standard wet blot equipment and also sem-dry blot transfer. Automated filling ensures complete reproducibility between batches.

The Cassette

Our cassettes use a thicker plastic to ensure a better fit with gel tanks, and don't require the use of adaptors. The cassettes are also easier to open and come without a name plate (which could otherwise catch on the pipette tip).

Custom Gel Concentrations
available at no extra charge!

Ordering Information

Cat #	Description	Pack Size	Price
NBS-RC	ReadyCast Protein Gel - Custom Conc., 10 well	10 gels (10x10cm)	£87.00
NBS-R12A-G	ReadyCast Protein Gradient Gel (4-12%), 10 well	10 gels (10x10cm)	£87.00
NBS-R12B-G	ReadyCast Protein Gradient Gel (4-12%), 15 well	10 gels (10x10cm)	£87.00
NBS-R20A-G	ReadyCast Protein Gradient Gel (4-20%), 10 well	10 gels (10x10cm)	£87.00
NBS-R20B-G	ReadyCast Protein Gradient Gel (4-20%), 15 well	10 gels (10x10cm)	£87.00
NBS-R10A	ReadyCast Protein Gel (10%), 10 well	10 gels (10x10cm)	£87.00
NBS-R10B	ReadyCast Protein Gel (10%), 15 well	10 gels (10x10cm)	£87.00
NBS-R12A	ReadyCast Protein Gel (12%), 10 well	10 gels (10x10cm)	£87.00
NBS-R12B	ReadyCast Protein Gel (12%), 15 well	10 gels (10x10cm)	£87.00
NBS-RC16A	ReadyCast Protein Gel (16%), 10 well	10 gels (10x10cm)	£87.00
NBS-RC16B	ReadyCast Protein Gel (16%), 15 well	10 gels (10x10cm)	£87.00

Acrylamide Products

Quality Acrylamides for Crystal Clear Electrophoresis Gels

- ✓ Batch tested to ensure reproducibility
- ✓ DNase, RNase & Protease free

Acrylamide, 40% Solution

Our 40% Acrylamide solution is made from ultra-pure components and is 0.45 and 0.2micron filtered.

Bis-Acrylamide, 2% Solution

Bis-Acrylamide solution is a crosslinker and is used in conjunction with the 40% Acrylamide solution to create a polyacrylamide gel of the required ratio.

Acryl/Bis Solutions

Our liquid acrylamide solutions are made to exact standards from the highest quality materials, this ensures crystal clear electrophoresis gels for reliable and reproducible results.

Solutions are manufactured using molecular biology grade pyrogen free water and filtered through 0.2 micron glass fibre and nylon filters to eliminate particulate matter.

Custom Formulations

We can offer a custom gel formulation service offering small batches of liquid acrylamide made to your specification!

Ordering Information

Cat #	Description	Pack Size	Price
NBS-2000-05	Acrylamide, 40% Solution	500ml	£38.00
NBS-2000-10	Acrylamide, 40% Solution	1L	£56.00
NBS-2500-05	Bis-Acrylamide, 2% Solution	500ml	£21.00
NBS-2500-10	Bis-Acrylamide, 2% Solution	1L	£36.00
NBS-2300-05	Acryl/Bis (19:1), 30% Solution	500ml	£40.00
NBS-2300-10	Acryl/Bis (19:1), 30% Solution	1L	£60.00
NBS-2600-05	Acryl/Bis (29:1), 30% Solution	500ml	£39.00
NBS-2600-10	Acryl/Bis (29:1), 30% Solution	1L	£59.00
NBS-2100-05	Acryl/Bis (37.5:1), 30% Solution	500ml	£42.00
NBS-2100-10	Acryl/Bis (37.5:1), 30% Solution	1L	£69.00
NBS-2400-05	Acryl/Bis (19:1), 40% Solution	500ml	£38.00
NBS-2400-10	Acryl/Bis (19:1), 40% Solution	1L	£59.00
NBS-3500-05	Acryl/Bis (29:1), 40% Solution	500ml	£42.00
NBS-3500-10	Acryl/Bis (29:1), 40% Solution	1L	£61.00
NBS-3600-05	Acryl/Bis (37.5:1), 40% Solution	500ml	£43.00
NBS-3600-10	Acryl/Bis (37.5:1), 40% Solution	1L	£64.00

Sodium Dodecyl Sulphate

SDS, 20% Solution

SDS is difficult to weigh due to its hazardous dispersal problems, therefore our SDS is supplied formulated into 20% solution ready for use. The SDS solution is 0.2 micron filtered and made from sterile MB grade water, it is supplied in 500ml quantities however other amounts can be supplied on request. SDS does not need sterilisation.

SDS-PAGE Buffers

TG (TRIS-Glycine) Buffer, 10x

TRIS-Glycine (TG) buffer is suitable for protein PAGE and western blotting procedures. Tris-Glycine and Tris-Glycine SDS are the most popular buffers used in the electrophoresis of proteins ranging from 5 to 500Kda. We also have TG buffer available as a premixed powder for added convenience.

TG-SDS (TRIS-Glycine-SDS) Buffer, 10x

Tris-glycine SDS is used as a running buffer for electrophoresis of proteins in PAGE proteomics studies. We also have TG-SDS buffer available as a premixed powder for added convenience.

Ordering Information

<i>Cat #</i>	<i>Description</i>	<i>Pack Size</i>	<i>Price</i>
NBS-4002-05	SDS, 20% Solution	500ml	£45.00
NBS-3000-01	TEMED	100ml	£44.00
A0029-1PK(4L)	TG Buffer, 10x Premixed Powder	1pk (4L)	£17.00
NBS-6300-50	TG Buffer, 10x Solution	5L	£64.00
NBS-6300-100	TG Buffer, 10x Solution	10L	£102.00
A0031-1PK(4L)	TG-SDS Buffer, 10x Premixed Powder	1pk (4L)	£23.00
NBS-6400-50	TG-SDS Buffer, 10x Solution	5L	£69.00
NBS-6400-100	TG-SDS Buffer, 10x Solution	10L	£106.00

ECL Western Blotting Reagent

Chemiluminescent Substrate for HRP

- ✓ Highly Sensitive Nonradioactive Substrate
- ✓ Easy Detection of Picogram Amounts of Antigen

ECL Western Blotting Substrate is a highly sensitive nonradioactive, enhanced luminol based chemiluminescent substrate for the detection of horseradish peroxidase (HRP) on immunoblots.

ECL Western Blotting Substrate enables the detection of picogram amounts of antigen and allows for easy detection of HRP using photographic or other imaging methods. Blots can be repeatedly exposed to X-ray film to obtain optimal results or stripped of the immuno-detection reagents and re-probed. The special formulation of ECL Substrate makes it the ideal substitute for Amersham ECL Substrate without the need for additional optimisation of assay conditions

Product Description...

ECL Western blotting detection reagent contains 2x100ml of A and B solutions.

Solutions A and B are mixed in a 1:1 ratio immediately prior to application. The mixture is then ready for detection of any immobilised specific antigens in chemiluminescent western blots through horseradish peroxidase (HRP) labelled antibodies. The kit is designed for a high quality and long lasting glow reaction.

The reagents in this kit have been matched to optimise the range and sensitivity of detection using various antibodies in Western blot assays.

Ordering Information

Cat #	Description	Pack Size	Price
G075	ECL Western Blotting Reagent	2 x 100ml	£71.00

Protein Labelling Kits

- ✓ High Recovery of Conjugates
- ✓ All Reagents Required for Labelling
- ✓ All Processes in Single Filtration Tube



Fluorescein Labelling Kit

The Fluorescein Labelling Kit-NH2 is mainly used for the preparation of fluorescein-labelled proteins such as IgG for immunostaining and cellular proteins for tracing. This kit can be used to produce conjugates in 1 hour and contains all of the necessary reagents for labelling, including storage buffer. Each vial of fluorescein can label up to 200 µg of IgG, conjugating about 4 to 6 fluorescein molecules per IgG molecule.

Biotin Labelling Kit

The Biotin Labelling Kit is available as both NH2 and SH reactive biotin (offering conjugation in 1 hour or 3 hours respectively). Both kits offer a high recovery of conjugates and contain all necessary reagents for the labelling. The number of biotin molecules per protein can be determined by HABA assay and excess biotin molecules can be removed using the Filtration tube (included).

Ordering Information

<i>Cat #</i>	<i>Description</i>	<i>Pack Size</i>	<i>Price</i>
LK01-10	Fluorescein Labelling Kit-NH2	3 samples	£259.00
LK03-10	Biotin Labelling Kit-NH2	3 samples	£150.00
LK55-10	Biotin Labelling Kit-NH2	1 sample	£141.00
LK10-10	Biotin Labelling Kit-SH	3 samples	£147.00
LK57-10	Biotin Labelling Kit-SH	1 sample	£145.00
LK11-10	Peroxidase Labelling Kit-NH2	3 samples	£207.00
LK51-10	Peroxidase Labelling Kit-NH2	1 sample	£202.00
LK09-10	Peroxidase Labelling Kit-SH	3 samples	£207.00
LK53-10	Peroxidase Labelling Kit-SH	1 sample	£202.00

Peroxidase Labelling Kit

The Peroxidase Labelling Kit is available as both NH2 and SH reactive peroxidase (offering conjugation in 1 hour or 3 hours respectively). This kit is mainly used for the preparation of peroxidase-labelled IgG for enzyme immunoassay (EIA) and for the preparation of peroxidase-labelled antigen for competitive EIA. This kit contains all of the necessary reagents for the labelling process, including Reducing agent and Storage buffer. When labelling small molecules, excess molecules can be removed by using the Filtration tubes included in this kit.

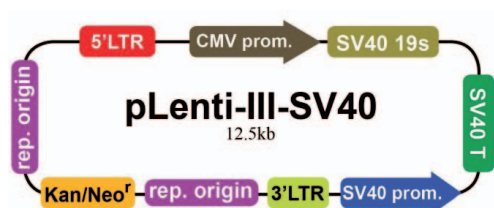
Lenti-SV40 Virus



The SV40 T antigen has been shown to be the simplest and most reliable agent for the immortalisation of many different cell types in culture. For the most part, viral genes achieve immortalisation by inactivating the tumor suppressor genes (p53, Rb, and others) that can induce a replicative senescent state in cells. Recent studies have also shown that SV40 T antigen can induce Telomerase activity in the infected cells.

Lenti-SV40 Virus

Vector Map



Description

Lenti/SV40 virus is a recombinant lentivirus containing SV40 whole gene. The virus can be used to infect primary target cells for cell immortalisation. The SV40 genome is over 5kb, which exceeds the packaging limit of the lentiviral vector and will result in either very low or no lentiviral titer. For this reason, the puromycin selection marker has been deleted from our pLenti-III/HA vector to allow high titers of Lenti-SV40 virus to be produced. It is not always necessary to use a selection marker for most primary cell immortalisations, especially for epithelial cells that normally have less than 10 population doubling cycles in culture. The unimmortalised cells will not survive and only the immortalised cells will thrive

Lenti-SV40 T Virus

Lenti-SV40 T virus is a recombinant lentivirus containing SV40 large T antigen. SV40 large T antigen is a multifunctional protein that is essential for the replication and expression of the viral genome, as well as for the establishment and maintenance of cell transformation and tumor induction.

Lenti-SV40 T+t Virus

Lenti-SV40 T+t virus is a recombinant lentivirus containing SV40 large and small T antigen. SV40 large T antigen is described above, SV40 small T antigen is thought to play an important role in viral transformation and possibly in lytic infection.

Also Available

- Adenovirus
- Retrovirus
- hTERT
- Cell Specific Products

Ordering Information

Cat #	Description	Pack Size	Price
G203	Lenti-SV40 Virus	10ml	£599.00
G256	Lenti-SV40T Virus	10ml	£599.00
G258	Lenti-SV40 T+t Virus	10ml	£599.00

Genomics

Proteomics

Immunology

Cell Biology

Separation

Custom Lentivirus Service

✓ Custom Production of Recombinant Lentiviral Vectors/Particles

Recombinant lentiviral vectors have been shown to be powerful tools for stable gene transfer to both dividing and non-dividing cells in vitro and in vivo. We work in collaboration with ABM to produce custom lentivirus products using their proprietary pLenti-Combo packaging mix and an efficient protocol for rapid production and preparation of recombinant lentiviral vectors/particles with titers up to 10^{10} IU/ml.

Ordering Information

Service	Description	Cat #	Price
Custom Lentiviral Plasmid Cloning	Sub-cloning gene of interest (w/ compatible sites) into a lentiviral vector system	LV021-a	£532.00
	Sub-cloning gene of interest (w/o compatible sites) into a lentiviral vector system	LV021-b	£679.00
	PCR-cloning gene of interest (<3.0kb) into a lentiviral vector system	LV021-c	£532.00
	PCR-cloning gene of interest (>3.0kb) into a lentiviral vector system	LV021-d	£679.00
Custom Lentiviral Production	Custom Recombinant Lentivirus (10^6 IU/ml; 10ml)	LV001	£448.00
	High-Titer Custom Recombinant Lentivirus (10^7 IU/ml; 1ml)	LV001-a	£658.00
	Enough DNA Provided High-Titer Custom Recombinant Lentivirus (10^8 IU/ml; 550ul)	LV001-b	£867.00
	High-Titer Custom Recombinant Lentivirus (10^9 IU/ml; 100ul)	LV001-c	£1077.00
	High-Titer Custom Recombinant Lentivirus (10^{10} IU/ml; 100ul)	LV001-d	£1457.00
	Custom Recombinant Lentivirus (10^6 IU/ml; 10ml)	LV002	£700.00
	DNA Amplification Required High-Titer Custom Recombinant Lentivirus (10^7 IU/ml; 1ml)	LV002-a	£783.00
	High-Titer Custom Recombinant Lentivirus (10^8 IU/ml; 550ul)	LV002-b	£993.00
High-Titer Custom Recombinant Lentivirus (10^9 IU/ml; 100ul)	LV002-c	£1203.00	
High-Titer Custom Recombinant Lentivirus (10^{10} IU/ml; 100ul)	LV002-d	£1622.00	
Custom Lentiviral Titration	qPCR Based (Detectable Range of 10^4 - 10^{10} IU/ml)	C099	£78.00

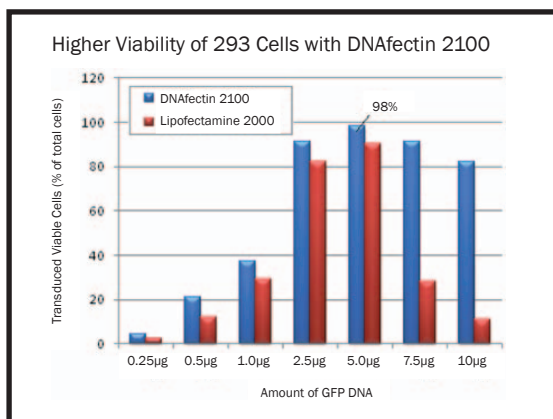
Please Note: The timeframe for delivery of these custom manufactured items is variable, an estimate can be provided on request.

DNAfectin 2100

High Efficiency Transfection Reagent

- ✓ Low Cytotoxicity
- ✓ Suitable for Primary Cells

DNAfectin 2100 Transfection Reagent is a unique formulation of multiple polycations and liposomes that enable highly efficient and effective DNA transfection of eukaryotic cells.



Above

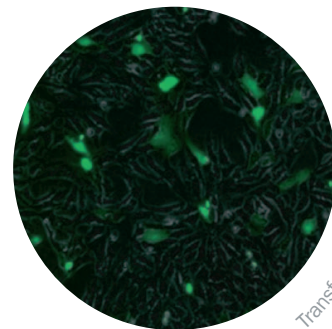
Transfection efficiency and cell viability of 293 cells transfected with different amounts of GFP plasmid DNA in a 6-well cell culture plate. Results are recorded 48 hours after transfection.

20% Discount

quote: B2013-20%

Ordering Information

Cat #	Description	Pack Size	Price
G2100	DNAfectin 2100	1mg/ml	£97.00



Transfection of Vero African Green Monkey Kidney Cells

Cell Line	Species/Tissue	Efficiency
293T	Human Embryonic Kidney	100%
Jurkat	Human T Lymphoma	25%
SHEP	Human Neuroblastoma	90%
BOSC23	Human Kidney	90%
HT1080	Human Fibrosarcoma	80%
C33A	Human Cervical Carcinoma	90%
MRC5	Human Primary Fibroblast	80%
MDK+Telo	Dog Kidney Cells+Telo	80%
B16	Murine Melanoma	80%
CB3	Mouse Erythroleukemia	25%
HuVEC	Human Ubilical Vein	20%
HepG2	Human Liver Carcinoma	40%
MMRU	Human Melanoma	75%
MMAN	Human Melanoma	80%
MDA-MB-231	Human Breast Carcinoma	85%
HeLa	Human Cervical Carcinoma	80-90%
A2780	Human Ovarian Carcinoma	70-75%
L6	Rat Myoblast	60-70%
Rabbit-telo	Telomerase-Rabbit Cells	50%
USO2 (T-USO2)	Human Osteosarcoma (tet-inducible)	80-90%

Genomics

Proteomics

Immunology

Cell Biology

Separation

Custom siRNA

HPLC Purified Oligos for Efficient Silencing



- ✓ Competitively Priced
- ✓ High Quality: HPLC Purity >97%
- ✓ Chemical Modified, Dye-Labelled or Large Scale Oligos

Our custom siRNA oligos are HPLC purified to >97%, this removes all of the unpaired single chains so all you need to do is dilute the oligos into universal buffer. The siRNA oligos are also chemically synthesised giving the following advantages:

1. Simple Operation
2. High Transfection Efficiency
3. Minimal Toxic Side Effect for Cells/Tissues
4. Large-scale Preparation

Ordering Information

Cat #	Description	Pack Size	Price
A01002	Custom siRNA Oligo	5.0 nmol	£57.00
A01005	Custom siRNA Oligo	12.5 nmol	£96.00
A01010	Custom siRNA Oligo	25.0 nmol	£174.00
A02002	Chemically Modified siRNA Oligo	5.0 nmol	£73.00
A02005	Chemically Modified siRNA Oligo	12.5 nmol	£111.00
A02010	Chemically Modified siRNA Oligo	25.0 nmol	£189.00
A03002	FAM Labelled siRNA Oligo	5.0 nmol	£106.00
A03005	FAM Labelled siRNA Oligo	12.5 nmol	£144.00
A03010	FAM Labelled siRNA Oligo	25.0 nmol	£223.00
B01001	siRNA Negative Control	2.5nmol	£18.00
B01002	siRNA FAM Labelled Negative Control	2.5nmol	£24.00
B01003	siRNA Positive Control	2.5nmol	£18.00

To order please supply either the sequences (sense & antisense) or the gene name.

free design

£57.00 / 5.0nmol

free negative control

Genomics

Proteomics

Immunology

Cell Biology

Separation

miRNA Mimics & Inhibitors

HPLC Purified miRNAs for Gene Regulation & Knockout

✔ Competitively Priced

✔ HPLC Purified (>97%)

miRNA Mimic Synthesis

miRNA mimics are small, single stranded, chemically-synthetic and optimised nucleic acids designed to mimic endogenous mature microRNA (miRNA) molecules in cells. Our miRNA Mimics are designed to directly enter the miRNA processing pathway and, after processing, are treated identically to endogenous miRNA within the cell.

miRNA Inhibitor Synthesis

miRNA inhibitors are chemically-modified and optimised nucleic acids designed to specifically target the miRNA molecules in cells. Endogenous miRNAs are small, regulatory RNAs that affect the translation of target mRNAs in animals and plants. The miRNA inhibitors are sequence-specific and chemically-modified to specifically target and knockout individual miRNA molecules.

Ordering Information

<i>Cat #</i>	<i>Description</i>	<i>Pack Size</i>	<i>Price</i>
M-01-S	miRNA Single Stranded (ss) Mimics	5nmol	£57.00
M-01-D	miRNA Double Stranded (ds) Mimics	5nmol	£57.00
B2004	miRNA Biotin Labelled ds Mimics	12.5nmol	£222.00
M-03-S	miRNA Mimics ss Negative Control	2.5nmol	£18.00
M-03-D	miRNA Mimics ds Negative Control	2.5nmol	£18.00
M-05	miRNA Mimics FAM Labelled ss Negative Control	2.5nmol	£24.00
A4001	miRNA Mimics Biotin Labelled Negative Control	5nmol	£146.00
M-02	miRNA Inhibitors	5nmol	£57.00
M-06	miRNA Inhibitors FAM Labelled ss Negative Control	2.5nmol	£32.00

Genomics

Proteomics

Immunology

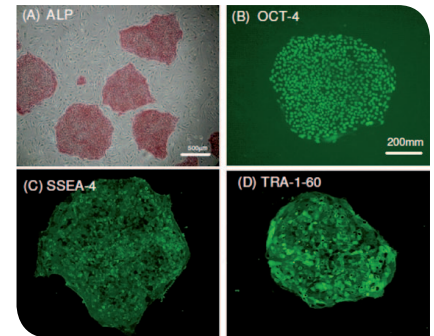
Cell Biology

Separation

StemCell Keep

Cryopreservation Solution for Stem Cells

- ✓ High Efficiency
- ✓ Protein and DMSO Free
- ✓ Long Shelf Life - Two Years at 4°C



StemCell Keep is a ready-to-use vitrification solution for human ES/iPS cell cryopreservation. This low toxicity and easy to handle solution has been developed without any protein or DMSO to achieve maximum efficiency.

High Efficiency

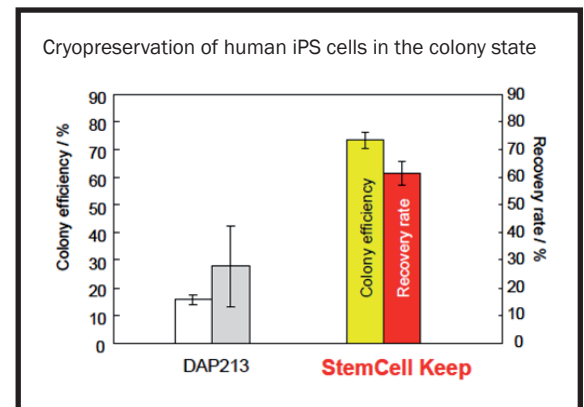
StemCell Keep combines high cytoprotection with vitrification technology to cryopreserve ES/iPS cell colonies - cell pluripotency is maintained after thawing.

Protein and DMSO Free

Animal-derived, protein free and DMSO free formulation with no risk of the adverse affect of DMSO on differentiation usually associated with vitrification.

Long Shelf Life

StemCell Keep has a shelf life of 2 years when stored at 4°C, after use the remaining solution can be kept for this period without losing functional quality.



Above - attached colony and recovery rates after thawing. *One day after seeding.* After vitrification with DAP213 only 15% of colonies were attached (compared to the non-freezing control), compared to 80% of the colonies when vitrified with StemCell-Keep. *At day 4.* Cells had grown and formed large colonies, these were counted to evaluate recovery rates - 28% for cells preserved by vitrification using DAP213, compared to 62% using StemCell-Keep.

Ordering Information

Cat #	Description	Pack Size	Price
NBS-VPL-A1	StemCell Keep	20ml (100 vials)	£270.00

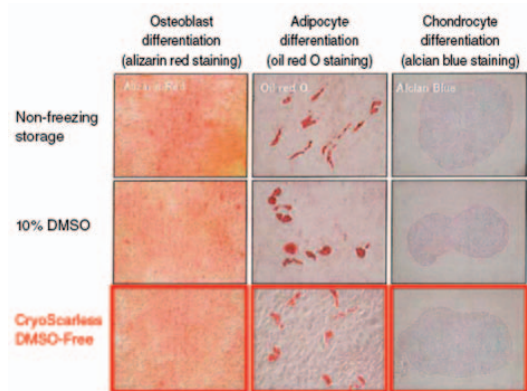
CryoScarless DMSO-Free

Serum/DMSO Free Medium for long-term Storage

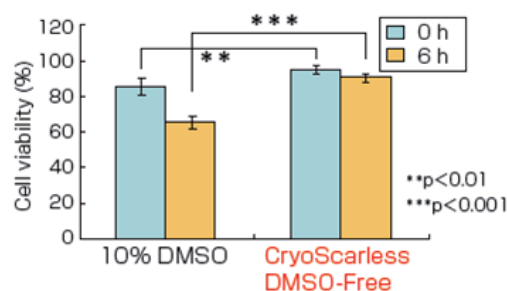
- ✓ Serum-Free and DMSO-Free Formulation
- ✓ Consistent and High Cell Viability after Thawing
- ✓ Free of Bacteria, Fungi and Mycoplasma Contamination



CryoScarless is a serum-free and DMSO-free cryopreservation medium for preservation of various cells at -80°C or in liquid nitrogen. This ready-to-use medium offers consistent and high cell viability after thawing ($> 90\%$ for most of the cell lines) whilst maintaining stem cell pluripotency. CryoScarless is free of bacteria, fungi and mycoplasma contamination and comes with a long shelf life (stable for 2 years at 4°C after the date of manufacture).



Above - Differentiation of rat mesenchymal stem cells after thawing. The results showed that cell pluripotency was maintained after thawing in rat mesenchymal stem cells cryopreserved in CryoScarless DMSO-Free.



Above - Cell viability of rat mesenchymal stem cells after thawing. Cell viability after cryopreservation with CryoScarless DMSO-Free was significantly higher than cells cryopreserved in 10% DMSO. 0 h : immediately after thawing, 6 h : after cell adhesion

Ordering Information

Cat #	Description	Pack Size	Price
NBS-CPL-A1	CryoScarless	100ml	£250.00

Genomics

Proteomics

Immunology

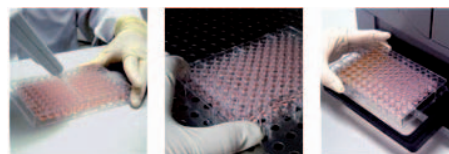
Cell Biology

Separation

Cell Counting Kit-8

Low Cytotoxicity Viability & Proliferation Assay

- ✓ Low Cellular Toxicity
- ✓ Ready-to-Use Single Bottle Solution
- ✓ No Radioisotopes or Organic Solvents Required

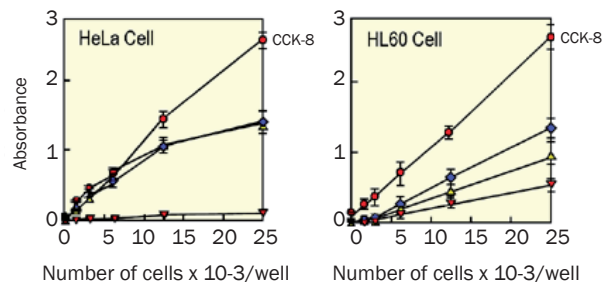


1. Add CCK-8 2. Incubate 3. Read O.D.

Cell Counting Kit-8 (CCK-8) is a Dehydrogenase based assay for cell viability and cytotoxicity. CCK-8 has been developed utilising highly water soluble tetrazolium salts, called WSTs, these produce a water-soluble formazan dye upon bioreduction in the presence of an electron carrier.

CCK-8 is added directly to the cells with no premixing of components, and is bioreduced by cellular dehydrogenases to give an orange water formazan product that is directly proportional to the number of living cells.

The kit components show no cytotoxicity in cell culture media and additional experiments may be carried out using the same assay plate. CCK-8 is a flexible assay and can be adapted for 24-384 well plates. CCK-8 combines the highly stable WST-8 with 1-Methoxy PMS, giving a sensitive, nonradioactive colourimetric assay for determining the number of viable cells.



Toxicity of Assay Solutions:

Comparison Between CCK-8 and Competitor Kit



Cell Counting Kit-8



Cell viability assay from company R

20% Discount (1000 assay pack size only)

quote: B2013-20%

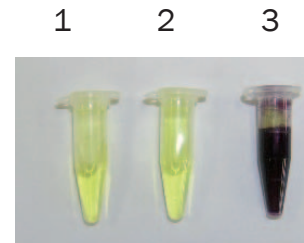
Ordering Information

Cat #	Description	Pack Size	Price
CK04-11	Cell Counting Kit-8	1000 assays	£199.00
CK04-13	Cell Counting Kit-8	3000 assays	£413.00
CK04-20	Cell Counting Kit-8	10,000 assays	£1,098.00

MTT Stable Solution

Ready-to-Use MTT, Suitable for Long Term Storage

- ✓ Stable for >12 Months at 4°C
- ✓ No Preparation Required
- ✓ 5mg/ml Concentration



- 1 Fresh MTT in PBS
- 2 MTT Stable solution after 2 months at 40°C
- 3 MTT in PBS after 2 months

MTT is a tetrazolium salt widely used to monitor cellular activity in cell cytotoxicity/proliferation assays. It is however it's very unstable in aqueous solution, and a stock solution of MTT must be prepared for each assay. MTT Stable Solution is a ready-to-use cell viability/cytotoxicity reagent and can be stored in a refrigerator for over a year and is therefore ideal for researchers requiring frequent assays.

Cytotoxicity Protocol

- 1) Dispense 100 µl of cell suspension (5,000 cells/well) in a 96-well plate.
- 2) Pre-incubate the plate for 24-48 hours in a CO₂ incubator.
- 3) Add 10 µl of culture media containing various concentrations of test substance to each well.
- 4) Incubate the plate for an appropriate length of time (e.g., 6, 12, 24 or 48 hours) in an incubator.
- 5) Add 10 µl of MTT solution to each well.
- 6) Incubate the plate at 37°C for 1-4 hours.
- 7) Dissolve the resulting MTT formazan by the addition of 100 µl of DMSO.
- 8) Read the absorbance at 520-600 nm using a microplate reader.

See Product Insert for Proliferation Protocol (also available on request)

30% Discount
(1000 assay pack size only)
quote B2013-30%

Ordering Information

Cat #	Description	Pack Size	Price
CK11-11	MTT Stable Solution	1000 assays	£128.00
CK11-15	MTT Stable Solution	5000 assays	£311.00

Genomics

Proteomics

Immunology

Cell Biology

Separation

CDM-HD Serum Replacement

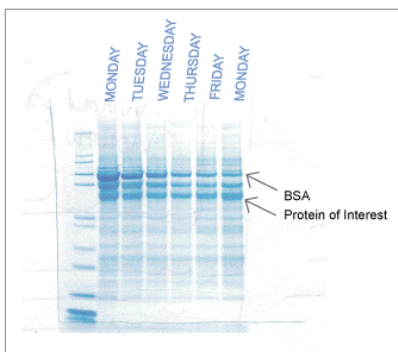
Chemically Defined & Protein Free

- ✓ Lot-to-Lot Consistency
- ✓ Regulatory Compliance Simplified
- ✓ Long Shelf Life, Simple Storage Conditions

CDM-HD Serum Replacement is a chemically defined, protein free serum replacement that permits any basal medium (eg. DMEM or RPMI) to be used without serum.

CDM-HD provides lot-to-lot consistency and is an economical replacement for serum. It is available as a dry powder to make up one litre and is used at a concentration of 10%. CDM-HD has been optimised for hollow fiber systems but is also suitable for use in T-Flask based cell cultures.

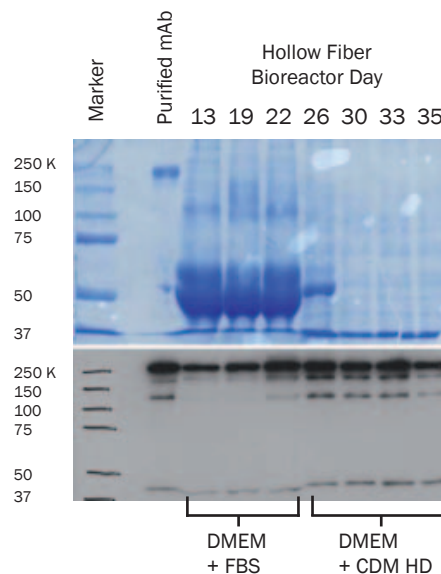
Demonstration of Adaptation to Serum-free Medium



SDS-Page gel of successive harvests from the ECS of a recombinant protein secreted by a 293 cell line. Initial medium is DMEM with 10% FBS (Monday). Medium is changed from DMEM-FBS to Hyclone serum free medium for 293 cells. Note the diminution of serum proteins, especially BSA in the harvest from the ECS while the protein of interest remains constant or increases as the adaptation continues. Protein of interest is higher in concentration on Mondays as it has accumulated over the weekend to a higher level.

Ordering Information

Cat #	Description	Pack Size	Price
CDM-HD	CDM-HD Serum Replacement	Powder for 1L	£141.00



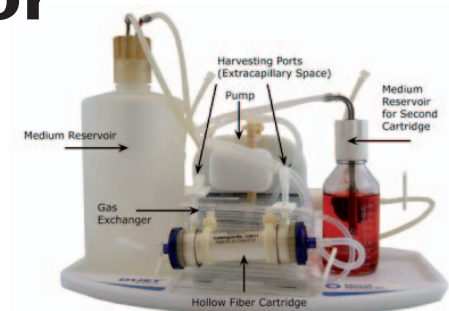
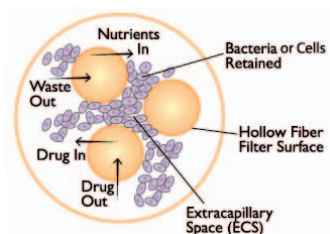
CDM-HD is part of the complete hollow fiber cell culture range we supply. This range includes the duet pump (see page 27), cartridges and accessories.

Designed for...

- ✓ Monoclonal Antibodies
- ✓ Recombinant Proteins
- ✓ In Vitro Toxicity
- ✓ Lymphocyte
- ✓ Endothelial
- ✓ Virus

Hollow Fiber Bioreactor

Duet Pump for Hollow Fiber Cell Culture



The Duet Pump provides flexible flow rate support for hollow fiber cell culture. Continuous flow is required to provide nutrition and constant oxygenation of the culture modules, so the Duet utilises a unique positive pressure displacement pumping action on the pump tubing of the flow path, this squeezing of the tubing in conjunction with the two one-way check valves produces a frictionless pumping action. This frictionless mechanism is the reason that FiberCell Systems modules have supported continuous culture of cells up to 2 years of continuous culture.

Cat #	Size	Surface Area	Fiber Type	Packing Density	ECS Vol	MWCO 50%	Max. Cell#	Price
C2025	Small	75 cm ²	activated PS	30%	2.5 mL	0.1 µm	108	£179.00
C2008	Medium	3000 cm ²	low flux PS	50%	20 mL	5 kd	109	£355.00
C2011	Medium	3000 cm ²	high flux PS	50%	20 mL	20 kd	109	£355.00
C2003	Large	1.2 m ²	low flux PS	50%	70 mL	5 kd	5 x 1010	£485.00
C2018	Large	1.2 m ²	high flux PS	50%	70 mL	20 kd	5 x 1010	£482.00
C4005	X-Large	2.5 m ²	low flux PS	50%	150 mL	5 kd	1011	£429.00
C3008	Medium	2000 cm ²	Cellulosic	38%	12 mL	10 kd	109	£355.00
C4020	X-Large	2.5 m ²	high flux PS	50%	150 mL	20 kd	1011	£429.00
C5011	Medium	3000 cm ²	high flux PS	50%	20 mL	20 kd	2 x 109	£389.00

▲ Cartridge Selection Guide

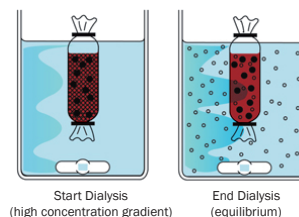
Please use the table above to choose the correct cartridge for use with the Duet Pump.

Ordering Information

Cat #	Description	Price
P3202	FiberCell Duet Pump	£1792.00
Oxy.6	0.6m ² Oxygenator	£969.00
A1006	38mm Reservoir Caps for plastic bottles	£165.00
A1005	33mm Reservoir Caps for glass bottles	£165.00
A1008	45mm Reservoir Caps (steel) for bottles	£206.00

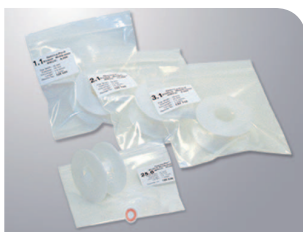
Biotech Dialysis Tubing

Biotech Grade CE and RC Tubing, Discs & Sheets



Biotech membranes are specifically engineered for more critical separation constraints in which an ultrapure membrane with a precise MWCO is required. Since these synthetic membranes are manufactured using a process without metal salts, no pre-treatment or cleaning is required. Biotech membranes are available in two membrane types:

- Cellulose Ester (CE)
- Regenerated Cellulose (RC)



Cellulose Ester (CE)

Wide range of selectivity and purity
pH Range: 2-9
Temperature Limit: 37°C
Organic Resistance: Fair

Regenerated Cellulose (RC)

Combined selectivity, purity, resistance
pH Range: 2-12
Temperature Limit: 60°C
Organic Resistance: Good

Ordering Information

Cat #	Description	Pack Size	Price
128610	SPECTRA/POR BIOTECH RC 10,000 MWCO 10MM	15M/PKG	£314.00
128616	SPECTRA/POR BIOTECH RC 10,000 MWCO 16MM	15M/PKG	£314.00
128620	SPECTRA/POR BIOTECH RC 25,000 MWCO 10MM	15M/PKG	£314.00
128626	SPECTRA/POR BIOTECH RC 25,000 MWCO 16MM	15M/PKG	£314.00
129015	SPECTRA/POR BIOTECH RC 8,000 MWCO 10MM	15M/PKG	£314.00
129020	SPECTRA/POR BIOTECH RC 8,000 MWCO 16MM	15M/PKG	£314.00
129115	SPECTRA/POR BIOTECH RC 15,000 MWCO 10MM	15M/PKG	£314.00
129120	SPECTRA/POR BIOTECH RC 15,000 MWCO 16MM	15M/PKG	£314.00
133110	SPECTRA/POR BIOTECH RC 3,500 MWCO 10MM	15M/PKG	£314.00
133116	SPECTRA/POR BIOTECH RC 3,500 MWCO 16MM	15M/PKG	£314.00
131048	SPECTRA/POR BIOTECH CE 100 - 500 MWCO 10MM	10M/PKG	£350.00
131054	SPECTRA/POR BIOTECH CE 100 - 500 MWCO 16MM	10M/PKG	£400.00
131054T	SPECTRA/POR BIOTECH CE 100 - 500 MWCO 16MM	1M/PKG	£132.00
131057	SPECTRA/POR BIOTECH CE 100 - 500 MWCO 24MM	10M/PKG	£458.00
131060	SPECTRA/POR BIOTECH CE 100 - 500 MWCO 31MM	10M/PKG	£481.00
131084	SPECTRA/POR BIOTECH CE 500 - 1,000 MWCO 10MM	10M/PKG	£350.00
131090	SPECTRA/POR BIOTECH CE 500 - 1,000 MWCO 16MM	10M/PKG	£400.00
131090T	SPECTRA/POR BIOTECH CE 500 - 1,000 MWCO 16MM	1M/PKG	£132.00
131093	SPECTRA/POR BIOTECH CE 500 - 1,000 MWCO 24MM	10M/PKG	£458.00
131096	SPECTRA/POR BIOTECH CE 500 - 1,000 MWCO 31MM	10M/PKG	£481.00
131192	SPECTRA/POR BIOTECH CE 3,500 - 5,000 MWCO 10MM	10M/PKG	£350.00
131198	SPECTRA/POR BIOTECH CE 3,500 - 5,000 MWCO 16MM	10M/PKG	£400.00
131198T	SPECTRA/POR BIOTECH CE 3,500 - 5,000 MWCO 16MM	1M/PKG	£132.00
131201	SPECTRA/POR BIOTECH CE 3,500 - 5,000 MWCO 24MM	10M/PKG	£458.00
131204	SPECTRA/POR BIOTECH CE 3,500 - 5,000 MWCO 31MM	10M/PKG	£481.00
131264	SPECTRA/POR BIOTECH CE 8,000 - 10,000 MWCO 10MM	10M/PKG	£350.00
131270	SPECTRA/POR BIOTECH CE 8,000 - 10,000 MWCO 16MM	10M/PKG	£400.00
131270T	SPECTRA/POR BIOTECH CE 8,000 - 10,000 MWCO 16MM	1M/PKG	£132.00
131273	SPECTRA/POR BIOTECH CE 8,000 - 10,000 MWCO 24MM	10M/PKG	£458.00
131276	SPECTRA/POR BIOTECH CE 8,000 - 10,000 MWCO 31MM	10M/PKG	£481.00
131336	SPECTRA/POR BIOTECH CE 20,000 MWCO 10MM	10M/PKG	£350.00
131342	SPECTRA/POR BIOTECH CE 20,000 MWCO 16MM	10M/PKG	£400.00
131342T	SPECTRA/POR BIOTECH CE 20,000 MWCO 16MM	1M/PKG	£132.00
131345	SPECTRA/POR BIOTECH CE 20,000 MWCO 24MM	10M/PKG	£458.00
131348	SPECTRA/POR BIOTECH CE 20,000 MWCO 31MM	10M/PKG	£481.00
131372	SPECTRA/POR BIOTECH CE 50,000 MWCO 10MM	10M/PKG	£350.00
131378	SPECTRA/POR BIOTECH CE 50,000 MWCO 16MM	10M/PKG	£400.00
131378T	SPECTRA/POR BIOTECH CE 50,000 MWCO 16MM	1M/PKG	£132.00
131381	SPECTRA/POR BIOTECH CE 50,000 MWCO 24MM	10M/PKG	£458.00
131384	SPECTRA/POR BIOTECH CE 50,000 MWCO 31MM	10M/PKG	£481.00
131408	SPECTRA/POR BIOTECH CE 100,000 MWCO 10MM	10M/PKG	£350.00
131414	SPECTRA/POR BIOTECH CE 100,000 MWCO 16MM	10M/PKG	£400.00
131414T	SPECTRA/POR BIOTECH CE 100,000 MWCO 16MM	1M/PKG	£132.00
131417	SPECTRA/POR BIOTECH CE 100,000 MWCO 24MM	10M/PKG	£458.00
131420	SPECTRA/POR BIOTECH CE 100,000 MWCO 31MM	10M/PKG	£481.00
131450	SPECTRA/POR BIOTECH CE 300,000 MWCO 24MM	10M/PKG	£400.00
131450T	SPECTRA/POR BIOTECH CE 300,000 MWCO 16MM	1M/PKG	£132.00
131486	SPECTRA/POR BIOTECH CE 1,000,000 MWCO 16MM	10M/PKG	£400.00
131486T	SPECTRA/POR BIOTECH CE 1,000,000 MWCO 16MM	1M/PKG	£132.00

Genomics

Proteomics

Immunology

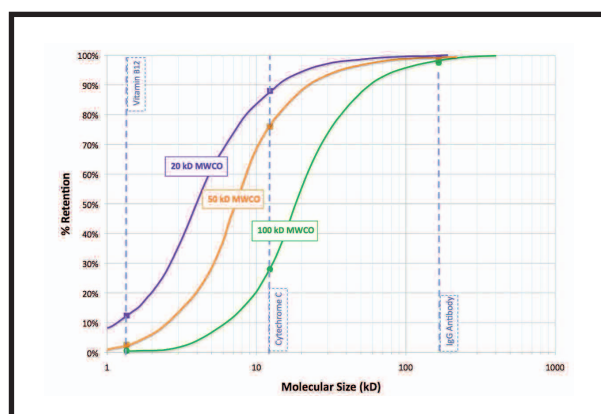
Cell Biology

Separation

Float-A-Lyser G2

Ready-to-Use Dialysis Device

- ✓ 95 - 98% Sample Recovery
- ✓ Volume Specific Dilution Control
- ✓ Superior Handling & Leak Prevention



▲ MWCO Selection Guide

Please use the chart above to choose the correct molecular weight cut off.

The proprietary Biotech Grade CE is a low protein-binding synthetic membrane available in 6 precise MWCO's with no heavy metal and sulfide contaminants. The cylindrical tubing geometry prevents sample dilution (associated with cassette-type devices) and provides open access for total volume retrieval by pipette. Only the Float-A-Lyser G2 assures a 95-98% sample recovery while maintaining 99% sample purity and <1% sample dilution.

Introducing the Float-A-Lyser G2, the next generation in Ready-to-Use laboratory dialysis devices featuring proprietary Ultra-pure Biotech Cellulose Ester (CE) Membranes.

The leak-proof screw-on cap with sealing o-ring provides easy access with included pipette for loading, in-process testing and sample retrieval, without the risk of needle punctures. The included floatation ring improves sample buoyancy and vertical orientation during dialysis. The sleek design allows multiple samples to be dialysed in the same reservoir.

Ordering Information

MWCO	Colour Code	Maximum Sample Volume			Pack Size
		1ml	5ml	10ml	
0.1 - 0.5 kD	Green	G235025	G235049	G235061	12/pkg
3.5 - 5 kD	Black	G235029	G235053	G235065	
8 - 10 kD	Yellow	G235031	G235055	G235067	
20 kD	Red	G235033	G235057	G235069	
50 kD	Violet	G235034	G235058	G235070	
100 kD	Blue	G235035	G235059	G235071	
300 kD	Amber	G235036	G235060	G235072	
1000 kD	Pink	G235037	G235062	G235073	
Price		£113.00	£124.00	£127.00	

Genomics

Proteomics

Immunology

Cell Biology

Separation

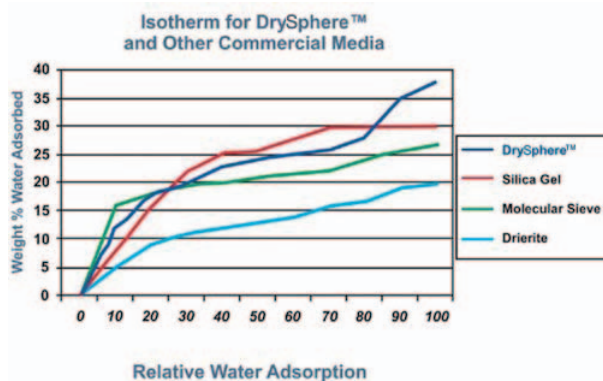
DrySphere Activated Alumina

The Most Effective Drying Agent on the Market!

- ✓ Dust Free - Avoids Contamination
- ✓ High Capacity - Adsorbs 36% of Own Weight
- ✓ Increased Surface Area - Uses Multiple Channels and Pores



DrySphere provides a superior solution for gas and industrial liquid dehydration. It contains a dust free spherical activated alumina and has been manufactured as a specialised desiccant agent that works through the process of adsorption and is designed for the removal of water, oil and other heavy hydrocarbons from inert gases including nitrogen, helium and argon. The superior adsorption is achieved by the hydrophilic characteristics, the design of the microporosity and the extent of the achieved surface area.



DrySphere is the only activated alumina on the market that can extract and adsorb 36% of its own weight in water, which is 3 times more than the standard alumina product offered by competitors, 20% more than silica and 32% more than Drierite. No other commercial media can remove as much water. It is the superior desiccant agent on the market for the drying of industrial liquids and gases.

Ordering Information

Indicator	Cat#	Description	Price
w/o indicator	01001-10	1/8 inch, 10kg	£296.00
	01001-25	1/8 inch, 25kg	£677.00
	01001-50	1/8 inch, 50kg	£1184.00
20% indicator	01005-10	1/8 inch, 10kg	£423.00
	01005-25	1/8 inch, 25kg	£846.00
	01005-50	1/8 inch, 50kg	£1565.00
100% indicator	01006-10	1/8 inch, 10kg	£761.00
	01006-25	1/8 inch, 25kg	£1607.00
	01006-50	1/8 inch, 50kg	£2790.00
w/o indicator	01010-1	1/4 inch, 1kg	£47.00
	01010-1	1/16 inch, 1kg	£39.00

Index

A	
Acrylamide, 40% Solution.....	17
Acryl/Bis Solutions.....	17
Agarose - Low EEO.....	6
Agarose - High Resolution.....	7
Agarose - Low Melting.....	7
All-in-One Purification Kit.....	14
B	
Bacterial Genomic Miniprep Kit.....	13
BesTaq DNA Polymerase.....	9
Biotin Labelling Kit.....	20
Bis-Acrylamide, 2% Solution.....	17
C	
CDM-HD Serum Replacement.....	30
Cell Counting Kit-8.....	28
CryoScarless DMSO-Free.....	27
Chemically Modified siRNA.....	24
D	
DNA Products	
- Electrophoresis.....	4-8
- Molecular Weight Markers.....	5
- Purification Kits.....	11-14
- PCR.....	9-10
- Stains.....	4, 8
DNAfectin 2100.....	23
DNA Ladder Plus.....	5
DNA/RNA Miniprep Kit.....	14
dNTP Mixture.....	9
dNTP Set.....	9
Drysphere Activated Alumina.....	34
Duet Pump.....	31
E	
EasyScript Reverse Transcriptase.....	10
EasyScript Plus Reverse Transcriptase.....	10
ECL Western Blotting Reagent.....	19
Electrophoresis Products	
- Nucleic Acid.....	4-8
- Protein.....	15 - 18
Endotoxin-Free Miniprep Kit.....	13
Ethidium Bromide.....	8
F	
FAM Labelled siRNA.....	24
Float-a-Lyzer G2.....	33
Fluorescein Labelling Kit.....	20
G	
Gel Extraction Kit.....	12
Genomic DNA Miniprep Kit.....	13
H	
Hollow Fiber Cell Culture	
- Duet Pump.....	31
- Oxygenator.....	31
- Reservoir Caps.....	31
L	
Lentiviral Vectors (custom).....	21
Lenti-SV40 Virus.....	21
M	
MgCl ₂	9
miRNA Mimics.....	25
miRNA Inhibitors.....	25
miRNA Negative Control.....	25
Molecular Weight Markers (DNA).....	5
MTT Stable Solution.....	29
O	
Oxygenator.....	31
P	
PCR Purification Kit.....	12
Peroxidase Labelling Kit.....	20
Plasmid DNA Miniprep Kit.....	13
Purification Kits (spin column & 96-well)	
- All-in-One, DNA/RNA/Protein.....	14
- DNA, Genomic.....	13
- DNA, Plasmid.....	13
- DNA, Extraction/Cleanup.....	12
- RNA, Miniprep.....	14
Precast Protein Gels	
- See ReadyCast Protein Gels -	
R	
Reaction Cleanup Kit.....	12
ReadyCast Protein Gels.....	16
Reservoir Caps.....	31
RNA Miniprep Kit.....	14
RNA Products	
- Electrophoresis.....	4-8
- Purification Kits.....	14
- Stains.....	4, 8
RNAi Products	
- miRNA Mimics.....	25
- miRNA Inhibitors.....	25
- Negative Controls.....	24, 25
- siRNA Oligos.....	24
Reverse Transcriptase	
- See EasyScript Reverse Transcriptase -	
S	
SafeBLUE Protein Stain.....	15
SafeView Nucleic Acid Stain.....	4
SafeWhite Nucleic Acid Stain.....	4
SDS (Sodium Dodecyl Sulfate).....	18
Single Colony Plasmid Miniprep Kit.....	13
siRNA Oligos.....	24
siRNA Negative Control.....	24
Spectra/Por Biotech Membrane.....	32
Spin Columns.....	11
Stemcell Keep.....	26
T	
TAE Buffer, 25x.....	8
TAE Buffer, 50x.....	8
Taq DNA Polymerase.....	9
- See also: BesTaq DNA Polymerase -	
TBE Buffer, 10x.....	8
TBE Buffer, 25x.....	8
TEMED.....	18
TG Buffer.....	18
TG-SDS Buffer.....	18
Transfection Reagent	
- See DNAfectin 2100 -	
V	
Viral DNA Miniprep Kit.....	13
Y	
Yeast Plasmid Miniprep Kit.....	13

Genomics

Proteomics

Immunology

Cell Biology

Separation

CTTCAAACCTTTTTGTTTTGTTTTGATAAATTTGCCCATTTTTGACTCTAGGTTTTTCCACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
ACAAAGATCCCAAACAGAGATTTAAAAGATGACAATGGCATGGACCTTTCAATGCTTTGTTACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
TTTTTGTTAAATTAGATATAAACCTTTCCAAACAGTAAATATCAAATTCATTAACAAGTACTTATATGGGCCA
ATCTATATCTCTCTAGTAGAGGTAGACCACAACCTTAAAAATCTCCTCAAGTCATGGTGGGACTTATATGGGCCA
TCTAACTGTAGGACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACTACTTATATGGGCCA
GAAAGTAATGGTTCCTTTTAAAAGCTTAGCCAAAAAACTTCAAATGTCTGAGTCAAACTTATATGGGCCA
TGTAAGTTGATTTCTCTGCAATTTCCATGAAAGATAGATAGATAAACTCTTACCAAAGTACTTATATGGGCCA
TCTGCAT



NBS biologicals Ltd.

14 Tower Square, Huntingdon, Cambridgeshire, PE29 7DT, UK

Telephone
+44 (0)1480 433875

Email
info@nbsbio.co.uk

Fax
+44 (0)1480 459868

www.nbsbio.co.uk

For technical assistance please telephone **+44 (0)1480 433875** or email info@nbsbio.co.uk



TTTTTGTTAAATTAGATATAAACCTTTCCAAACAGTAAATATCAAATTCATTAACAAGTACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
ATCTATATCTCTCTAGTAGAGGTAGACCACAACCTTAAAAATCTCCTCAAGTCATGGTGGGACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
TCTAACTGTAGGACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACTACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
GAAAGTAATGGTTCCTTTTAAAAGCTTAGCCAAAAAACTTCAAATGTCTGAGTCAAACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
TGTAAGTTGATTTCTCTGCAATTTCCATGAAAGATAGATAGATAAACTCTTACCAAAGTACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
TCTGCATATCAAATACATTTTTGTCCTCTACACACAATGATTAATAAATGAGAAATGGACACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
CTACCTTTCACAGCATTCTTTATATATTTTATAAAACCAGTACAATTTTACTAAATTACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
ATGATGTTAAAGTAAGAGACTTTGAAGAAGACGACTTAGCAAAGACCAAAACCAAGAAATACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
TACATAGGAACAAGCCAAGAAGATACATAGATAATTTCTTTTTGCTTGTAAATATATTTACACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
AACTTCATAAACATCATCGTTCTGCAACTCTCTCTCGATATCCAATCATGGACGATTGTCACCTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
GATTCGAGACGAGTGAGTTGCAAGCTTCGGTAATGATATCGACTCCTTTATTTACCGTTGACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
CTTGTGGGCTTGCCAGTCACCGAGATGTTCTTTTCCCGGCTTATCCTCCGATGAACCTACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
TAAAAGTTGTTTTCTCTCTGTTTTTTTTTCTTTCTATTTGGATGCAATTTAACTACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
ATTTATATCTTCAAGCATGTGGATATTTGAATTTCAAATTAATAACTCGAGAGAAAACCTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
ACAAAATTCATATAAGTTTTTATCGTTTGGATTTGCGAAAACGAATTTACCTATTTAACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT
AGTTACTT
TTTTATT
TTTTGTC
ACAATAG
CAATTTCCAAATCCACCATTGGAATATGTCTATGTCGCGACCTTTGGATATCATAAGACTTATATGGGCCAAATTTGTATAACTATATCATGTAAAGCTGAAACT

The products contained within this catalogue are for research use only
Products and pricing are subject to change without notice