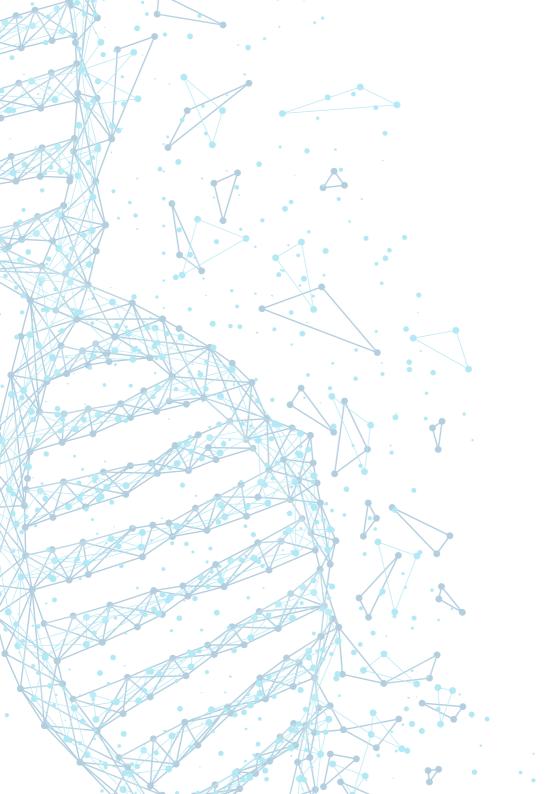
# Product List / 2020



Enzymes As You Need

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## Product List / 2020

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### DNA & RNA ISOLATION KITS

Product Name	Pack Size	Cat. No.	Description
GENOMIC DNA Isolati	on Kits		
	10 preps	EM13-010	Purification of genomic, mitochondrial, bacterial, parasite or viral DNA from solid tissues, physio- logical fluids (urine, cerebrospinal fluid
EXTRACTME GENOMIC DNA KIT universal	50 preps	EM13-050	<ul> <li>peritoneal fluids (urine, cerebrospinal fluid, peritoneal fluid, pleural fluid, sputum), fresh and frozen blood, mucosa membrane swabs (including buccal, nasal, pharyngeal and vaginal swabs)</li> </ul>
universat	250 preps	EM13-250	semen, hair, rodent tails, insects, bacteria, yeast and cell cultures.
	10 preps	EM02-010	
EXTRACTME DNA BACTERIA KIT	50 preps	EM02-050	<ul> <li>Rapid and efficient purification of high quality bacterial gDNA from broth and plate cultures</li> <li>as well as frozen cells.</li> </ul>
	250 preps	EM02-250	
	10 preps	EM03-010	Purification of high quality DNA from solid tissues
EXTRACTME DNA TISSUE KIT	50 preps	EM03-050	<ul> <li>(fresh, frozen, formalin-preserved or paraffin- embedded), physiological fluids, hair, rodent</li> </ul>
	250 preps	EM03-250	tails, insects and cell cultures.
	10 preps	EM04-010	Purification of high quality DNA from solic tissues (fresh, frozen, formalin-preserved o
EXTRACTME DNA TISSUE PLUS KIT	50 preps	EM04-050	paraffin-embedded), hair, rodent tails, insects and cell cultures. The kit includes additional
	250 preps	EM04-250	<ul> <li>bead-beating tubes with ceramic filling for tissue homogenization.</li> </ul>
	10 preps	EM05-010	Purification of high quality (genomic, mitochon-
EXTRACTME DNA BLOOD KIT	50 preps	EM05-050	drial and viral) DNA from whole blood (fresh or frozen, human or other mammalian), plasma
	250 preps	EM05-250	serum, buffy coats, lymphocytes and body fluids
	10 preps	EM06-010	Purification of high quality DNA from humar
EXTRACTME DNA SWAB & SEMEN KIT	50 preps	EM06-050	and animal mucosa membrane swabs (including buccal, nasal, pharyngeal and vaginal swabs
	250 preps	EM06-250	as well as from semen.

Product Name	Pack Size	Cat. No.	Description
RNA Isolation Kits			
	10 preps	EM09.1-010	Improved kit for rapid, efficient purification of high quality total RNA from up to 30 mg of tissue
EXTRACTME TOTAL RNA KIT	50 preps	EM09.1-050	(fresh or frozen), or up to 10 <sup>7</sup> cultured cells. RNA binding capacity: ~230 µg. Significantly improved
	250 preps	EM09.1-250	RNA yields and shortened processing time. Antifoam reagent and nuclease are also included!
	10 preps	EM11.1-010	Improved kit for rapid, efficient purification of high quality total RNA from up to 30 mg of tissue (fresh or frozen), or up to 107 cultured cells. RNA
EXTRACTME TOTAL RNA PLUS KIT	50 preps	EM11.1-050	<ul> <li>binding capacity: ~ 230 µg. Significantly improved RNA yields and shortened processing time. This kit</li> <li>includes ceramic beads system for gentle tissue</li> </ul>
	250 preps	EM11.1-250	homogenization. Antifoam reagent and nuclease are also included!
	10 preps	EM12-010	For rapid, phenol-free extraction of RNA highly enriched in short RNA strands (< 200 nt). Superior yields and purity. Suitable for wide range of cells,
EXTRACTME miRNA KIT	50 preps	EM12-050	tissues (including blood). This kit also allows par- allel extraction of high quality long RNA strands (> 200 nt) from the same sample. The kit contains
	250 preps	EM12-250	<ul> <li>three columns: first one for DNA removal, second one for purification of long RNA, and third one for purification of short RNA.</li> </ul>
	10 preps	EM15-010	Rapid, simultaneous isolation of high quality genomic DNA and total RNA from a single
EXTRACTME RNA & DNA KIT	50 preps	EM15-050	biological sample, from up to 30 mg of tissue or up to 10 <sup>7</sup> cultured cells. This kit is ideal for
	250 preps	EM15-250	researchers interested in studying the genome and the transcriptome of a single sample.
	10 preps	EM25-010	Purification of high quality RNA from broth, yeast
EXTRACTME RNA BACTERIA & YEAST KIT	50 preps	EM25-050	or bacteria cultures as well as from frozen cells; Yeast Lysis Mix, RNA Extraction Enhancer and
	250 preps	EM25-250	nuclease are included; up to 60 µg RNA.
	10 preps	EM31-010	Rapid and efficient purification and concentration
EXTRACTME TOTAL RNA MICRO SPIN KIT	50 preps	EM31-050	of high quality RNA from tissue or cultured cells in a micro-spin column format (elution volume
	250 preps	EM31-250	from 5 μl). Nuclease is included.
	100 ml	EM30-100	Ready-to-use reagent for the isolation of separate fractions of RNA, DNA and proteins from cell and
EXTRAZOL	200 ml	EM30-200	tissue samples of human, animal, plant, yeast, or bacterial origin, within one hour.
Bead-beating Tubes	100 pcs	HPLM100 / HPLM100A	2 ml bead-beating tubes with 1 g ceramic filling (1.4 mm) for soft tissue homogenization;
with ceramic filling	500 pcs	HPLM500 / HPLM 500A	Lysing Matrix D equivalent. Two different tube shapes that will fit to any bead-beater.



Product Name	Pack Size	Cat. No.	Description			
PLASMID DNA Isolation	PLASMID DNA Isolation Kits					
	10 preps	EM01.1-010				
EXTRACTME PLASMID MINI KIT	50 preps	EM01.1-050	Mini-scale extraction of plasmid DNA from recombinant <i>Escherichia coli</i> strains; binding capacity 60 µg pDNA.			
	250 preps	EM01.1-250				
<b>EXTRACT</b> ME	10 preps	EM16-010	Ultrapure, transfection-grade plasmid DNA isolation in medium scale (50–300 ml of bacterial culture); yield: 200–600 µg DNA from			
PLASMID MIDI KIT	25 preps	EM16-025	100 ml culture; isolation time: 120–130 minutes (with DNA precipitation); centrifugation steps: 6000 x g (no need to have ultracentrifuge).			
EXTRACTME PLASMID MIDI	10 preps	EM17-010	Ultrapure, transfection-grade plasmid DNA isolation in medium scale (50–300 ml of bacterial culture); yield: 200–600 µg DNA from 100 ml culture; endotoxins removal:			
ENDOTOXIN-FREE KIT	25 preps	EM17-025	<ul> <li>40.1 EU/µg verified by LAL; isolation time:</li> <li>150–160 minutes (with DNA precipitation); centrifugation steps: 6000 x g.</li> </ul>			
<b>EXTRACT</b> ME	10 preps	EM18-010	Ultrapure, transfection-grade plasmid DNA isolation in large scale (200–1000 ml of bacterial culture); yield: 1–1.5 mg DNA from 400 ml culture;			
PLASMID MAXI KIT	25 preps	EM18-025	isolation time: $140-150$ minutes (with DNA precipitation); centrifugation steps: $6000 \times g$ (no need to have ultracentrifuge).			
EXTRACTME PLASMID MAXI	10 preps	EM19-010	Ultrapure, transfection-grade plasmid DNA isolation in large scale (200–1000 ml of bacterial culture); yield: 1–1.5 mg DNA from 400 ml culture;			
ENDOTOXIN-FREE KIT	25 preps	EM19-025	endotoxins removal: <pre>c0.1 EU/µg verified by LAL; isolation time: 170–180 minutes (with DNA precipitation); centrifugation steps: 6000 x g (no need to have ultracentrifuge).</pre>			

Product Name	Pack Size	Cat. No.	Description
DNA Fragments Purifica	ation Kits		
	10 preps	EM07.1-010	New upgraded kit for DNA purification after enzymatic reactions; the kit enables the
EXTRACTME DNA CLEAN-UP KIT	50 preps	EM07.1-050	purification of DNA fragments from 50 bp to 20 kb, as well as plasmid and genomic DNA; significall improved recovery: up to 99%
	250 preps	EM07.1-250	<ul> <li>(depending on DNA fragment length); binding capacity: approx. 40 μg DNA; time required: 10 min for 6 PCR purifications.</li> </ul>
	10 preps	EM08.1-010	
EXTRACTME DNA GEL-OUT KIT	50 preps	EM08.1-050	<ul> <li>Purification of DNA fragments directly from agarose gels (standard and low-melting point agarose gels run in either a TAE or TBE buffer).</li> </ul>
	250 preps	EM08.1-250	agarose gets full in entier a fAE of fDE burier).
	10 preps	EM26.1-010	
EXTRACTME DNA CLEAN-UP & GEL-OUT KIT	50 preps	EM26.1-050	<ul> <li>DNA purification after enzymatic reactions &amp; DNA fragments isolation directly from agarose gels – two options in one kit.</li> </ul>
	250 preps	EM26.1-250	two options in one kit.
	10 preps	EM28-010	Rapid and efficient purification and concentration
EXTRACTME DNA CLEAN-UP & GEL-OUT MICRO SPIN KIT	50 preps	EM28-050	of DNA fragments after enzymatic reactions and directly from agarose gels with low elution
	250 preps	EM28-250	volume of only 5 µl.



Product Name	Pack Size	Cat. No.	Description
Mini Spin Columns			
DNA CLEAN-UP mini spin columns	50 pcs	EM07.1C-050	Mini spin columns with silica resin with 2 ml receiving tubes used in EM07.1 kit.
DNA GEL-OUT mini spin columns	50 pcs	EM08C-050	Mini spin columns with silica resin with 2 ml receiving tubes used in EM08.1 and EM26.1 kits.
PLASMID DNA mini spin columns	50 pcs	EM01C-050	Mini spin columns with silica resin with 2 ml receiving tubes used in EM01.1 kit.
SWAB & SEMEN DNA mini spin columns	50 pcs	EM06C-050	Mini spin columns with silica resin with 2 ml receiving tubes used in EM06 kit.
GENOMIC DNA mini spin columns	50 pcs	EM13C-050	Mini spin columns with silica resin with 2 ml receiving tubes used in EM03, EM04, EM05, EM13 kits.
BACTERIA & YEAST DNA mini spin columns	50 pcs	EM02C-050	Mini spin columns with silica resin with 2 ml receiving tubes used in EM02, EM10 kits.
TOTAL RNA mini spin columns	50 pcs	EM09.1C-050	Mini spin columns with silica resin with 2 ml receiving tubes used in EM09.1, EM11.1, EM15 kits.
miRNA mini spin columns	50 pcs	EM12C-050	Mini spin columns with silica resin with 2 ml receiving tubes used in EM12 kit.
MICRO SPIN columns	50 pcs	EM28C-050	Micro spin columns with silica resin with 2 ml receiving tubes used in EM28, EM29 and EM31 kits.

# **REAL-TIME PCR MASTER MIXES**

Product Name	Pack Size	Cat. No.	Description
AMPLIFYME	200 rxns	AM01-020	The AMPLIFYME SG No-ROX Mix is a convenient enzyme mixture for fast and reliable quantitative Real-Time PCR, using SG
SG No-ROX Mix	2000 rxns	AM01-200	dsDNA-binding dye. Compatible with qPCR instruments that don't need ROX dye.
AMPLIFYME	200 rxns	AM02-020	The AMPLIFYME SG Universal Mix is a convenient enzyme mixture for fast and reliable quantitative Real-Time PCR, using SG dsDNA-binding dye. Compatible with all types of qPCR
SG Universal Mix	2000 rxns	AM02-200	instruments. Additional tubes with low and high concentration of ROX are included.
AMPLIFYME	200 rxns	AM04-020	Convenient enzyme mixture for fast and reliable qPCR using probes, including TaqMan <sup>®</sup> , Scorpions <sup>®</sup> and molecular beacon probes. It is the best choice for your probe based Real-Time PCR
Probe No-ROX Mix	2000 rxns	AM04-200	assays, including singleplex and multiplex gene expression studies, genotyping experiments or diagnostic assays. Compatible with qPCR instruments that don't need ROX dye.
<i>AMPLIFYME</i> Probe Universal Mix	200 rxns	AM05-020	The AMPLIFYME Probe Universal Mix is a convenient enzyme mixture for fast and reliable qPCR using probes, including TaqMan®, Scorpions® and molecular beacon probes. It is the best choice for your probe based Real-Time PCR assays, including singleplex and
	2000 rxns	AM05-200	multiplex gene expression studies, genotyping experiments or diagnostic assays. Universal – compatible with all types of qPCR instruments. Additional tubes with low and high concentration of ROX are included.
One-Step			
AMPLIFYME SG One-Step	100 rxns	AM06-100	Ready-to-use, 2x concentrated Mix contains all ingredients necessary for Real-Time PCR based on intercalating dsDNA
No-ROX RT-qPCR Mix	500 rxns	AM06-500	binding dye chemistry: hot-start <i>Taq</i> polymerase, dNTPs, specially developed buffer, stabilizers and enhancers.
AMPLIFYME SG One-Step	100 rxns	AM07-100	Ready-to-use, 2x concentrated Mix contains all ingredients necessary for Real-Time PCR based on intercalating dsDNA
Universal RT-qPCR Mix	500 rxns	AM07-500	binding dye chemistry: hot-start <i>Taq</i> polymerase, dNTPs, specially developed buffer, stabilizers and enhancers.
AMPLIFYME Probe One-Step	100 rxns	AM08-100	Ready-to-use, 2x concentrated Mix contains all ingredients necessary for Real-Time PCR based on probe detection technology:
No-ROX RT-qPCR Mix	500 rxns	AM08-500	hot-start <i>Taq</i> polymerase, dNTPs, specially developed buffer, stabilizers and enhancers.
AMPLIFYME Probe One-Step	100 rxns	AM09-100	Ready-to-use, 2x concentrated Mix contains all ingredients necessary for Real-Time PCR based on probe detection technology:
Universal RT-qPCR Mix	500 rxns	AM09-500	hot-start <i>Taq</i> polymerase, dNTPs, specially developed buffer, stabilizers and enhancers.

# PCR REAGENTS

	Product Name	Pack Size	Cat. No.	Description
	Thermostable	DNA polymerase	es from Thermu	us aquaticus (Taq Polymerases)
		200 U (5 U/µl)	RP702A	<ul> <li>Tag DNA Polymerase suited to a wide range of</li> </ul>
	TaqNova	500 U (5 U/μl)	RP705A	applications, fast and very efficient; universal and easy-to-use; half-life of the enzyme is 45 minutes
	DNA Polymerase	1000 U (5 U/µl)	RP710A	at 95°C; shows $5' \rightarrow 3'$ exonuclease activity; does not have $3' \rightarrow 5'$ exonuclease activity; adds A on
		2500 U (5 U/µl)	RP725A	the 3' ends.
		200 U (5 U/µl)	RP1002	TaqNova DNA-free Polymerase is a 94 kDa recombinant, thermostable Taq DNA polymerase isolated from Thermus aquaticus. It is recommended for a wide range of applications which require DNA synthesis at extremely high temperatures.
NEW	<i>TaqNova</i> DNA-free Polymerase	1000 U (5 U/µl)	RP1010	TaqNova DNA-free Polymerase is an universal and easy-to-use DNA polymerase that works rapidly and effectively in various PCR conditions. It is highly purified from DNA contaminants (≤ 1 <i>E. coli</i> genome in 1 U of enzyme), enabling amplification of very
		100 U/µl	RP1000HC (upon request)	conserved sequences (e.g. bacterial 16S rRNA region) without risk of false positive PCR results. The enzyme catalyzes DNA synthesis in a 5'→ 3' direction, shows no 3'→ 5' exonuclease activity, but has a 5'→ 3' exonuclease activity.
	2x PCR TaqNova-RED	100 rxns (50 µl)	RP85T	2x concentrated, ready-to-use PCR master mix with
		1000 rxns (50 µl)	RP85T-10	<ul> <li>TaqNova polymerase, that facilitates an easy and rapid PCR reaction set-up.</li> </ul>
		200 U (5 U/µl)	RP902A	— Mixture of thermostable <i>Taq</i> DNA polymerase
	TaqNovaHS	500 U (5 U/μl)	RP905A	and a highly specific monoclonal antibody, that acts as an inhibitor of the polymerization activity
	DNA Polymerase	1000 U (5 U/µl)	RP910A	(for Hot-Start PCR technique); high PCR specificity with minimal optimization; fast 2-minutes enzyme
		2500 U (5 U/µl)	RP925A	activation time; very efficient.
	<i>TaqNova Stoffel</i> DNA Polymerase	1000 U (2 U/µl)	RP810	Highly active <i>Taq</i> DNA polymerase without $5' \rightarrow 3'$ exonuclease activity. <i>TaqNova</i> Stoffel DNA Polymerase works optimally at a broader range of MgCl, concentration (2–10 mM) as compared to <i>Taq</i> DNA polymerase – easier and faster optimization. It is also useful for multiplex reactions. In special applications <i>TaqNova</i> Stoffel DNA Polymerase has proven better specificity than regular <i>Taq</i> DNA polymerase. It is especially recommended for amplifications of small fragments from gDNA. The absence of the $5' \rightarrow 3'$ exonuclease activity makes it very suitable for cycle sequencing. It gives higher sequence intensity and low background.

Product Name	Pack Size	Cat. No.	Description
Proofreading Polyme	rases from Pyroc	occus woe	<i>sei (Pwo</i> Polymerases)
Hypernova	200 U (2 U/μl)	RP232	Hypernova DNA Polymerase is a recombinant, thermostable and proofreading Pwo DNA polymerase, derived from Pyrococcus woesei, expressed in E. coli. The enzyme can generate very long amplicons (up to 10 kbp). Hypernova is a versatile and easy-to-
DNA Polymerase	1000 U (2 U/µl)	RP235	use polymerase since it works with many different protocols and requires minimal time consuming optimization. It is also recommended for the amplification of difficult templates (regions abundant in GC, palindromes and multiple repeats).
	100 rxns (50 µl)	RP85	2x concentrated, ready-to-use PCR master mix with <i>Hypernova</i> DNA polymerase, that facilitates an easy and rapid PCR
2x PCR Hypernova-RED	1000 rxns (50 µl)	RP85-10	<ul> <li>reaction set-up. 2x PCR Hypernova-RED is supplemented with an inner dye and a density reagent, which allows for direct loading of PCR products to a gel.</li> </ul>
PCR Enhancers			
PCR Anty-inhibitor	100 rxns	RP50	PCR additive used for elimination of PCR inhibitors coextracted with DNA; — amplification of problematic templates,
PCKAnty-Inhibitor	500 rxns	RP51	isolated from: urine, stool, saliva, sputum, blood, swabs, biopsy materials etc.
Deoxyribonucleotides	s (dNTPs)		
dNTPs MIX 10 mM Total	1 ml	RP63	Deoxyribonucleotides Mix (2.5 mM dATP, 2.5 mM dCTP, 2.5 mM dGTP, 2.5 mM dTTP); ultra-pure; supplied as lithium salts (greater stability).
dNTPs MIX 40 mM Total	1 ml	RP64	Deoxyribonucleotides Mix (10 mM dATP, 10 mM dCTP, 10 mM dGTP, 10 mM dTTP); ultra-pure; supplied as lithium salts (greater stability).
dNTPs MIX 100 mM Total	1 ml	RP65	Deoxyribonucleotides Mix (25 mM dATP, 25 mM dCTP, 25 mM dGTP, 25 mM dTTP); ultra-pure; supplied as lithium salts (greater stability).
dNTPs SET 10 mM	4x 1 ml	RP665	10 mM of each dNTP in separate tubes; ultra-pure; supplied as lithium salts (greater stability).
dNTPs SET 100 mM	4x 1 ml	RP675	100 mM of each dNTP in separate tubes; – ultra-pure; supplied as lithium salts (greater
	4x 250 μl	RP675-25	stability).

# **REVERSE TRANSCRIPTION**

Product Name	Pack Size	Cat. No.	Description
TRANSCRIPTME RNA KIT	20 rxns	RT31-020	10 pg – 5 μg of total RNA; optimal reaction temp. 50°C; contains Enzyme Mix (Reverse Transcriptase
cDNA synthesis kit	100 rxns	RT31-100	<ul> <li>and RNase Inhibitor); 2x Master Mix (oligo(dT) primers, random hexamers, dNTPs, MgCl<sub>2</sub>) and RNase H.</li> </ul>
TRANSCRIPTME	10 000 U (200 U/μl)	RT32-010	Modified M-MuLV Reverse Transcriptase; 10 pg – 5 μg of total RNA; has increased thermal stability (optimum activity at 50°C); has no 3'→5' exonuclease and reduced RNase H activity, which
M-MuLV Reverse Transcriptase	50 000 U (200 U/μl)	RT32-050	improves the synthesis of a full-length cDNA, even from long mRNA templates, using random priming; gives high yields of first strand cDNA up to 10 kb long.
RNase H	250 U (5 U/μl)	RT34-025	RNase H is a 18.9 kDa recombinant endoribo- nuclease, which hydrolyses specifically the phosphodiester bonds of RNA hybridized to DNA. The enzymes does not degrade single and dou- ble-stranded DNA or unhybridized RNA. It is a key
	1250 U (5 U/μl)	RT34-125	enzyme in the removal of mRNA after first-strand cDNA synthesis. Treating cDNA with RNase H prior to PCR can improve sensitivity as RNA bonded to the cDNA template may prevent binding of the amplification primers in a PCR reaction.
<b>RIBOPROTECT</b> <b>Hu RNase Inhibitor</b> IMPROVED STABILITY!	2000 U (40 U/µl)	RT35-020	RIBOPROTECT Hu RNase Inhibitor is a 50 kDa recombinant human placental protein expressed in <i>Escherichia coli</i> . It inhibits ribonuclease (RNase) activity of common eukaryotic enzymes such as RNase A, RNase B, RNase C. RIBOPROTECT Hu is intended for use in applica-
	10 000 U (40 U/µl)	RT35-100	tions where the presence of RNases may cause a hazard to RNA quality and experiment results, e.g. in RNA isolation, cDNA synthesis, RT-PCR, in vitro transcription and translation, or RNase-free monoclonal antibody preparation. Stable up to 58°C and at min. 0.5 – 1 mM DTT concentration ranges.

# **ENZYMES & PROTEINS**

Product Name	Form	Pack Size	Cat. No.	Description
Proteinase I	<b>(</b>			
		100 mg	RP100B	
	Powder	250 mg	RP101B	Recombinant Proteinase K from
	Powder	1000 mg	RP102B	Tritirachium album expressed in Pichia pastoris is a broad spectrum serine protease. Our recombinant Proteinase K is
		bulk	RP103B	extensively purified to give highly active preparation devoid of any detectable nuclease activities.
MBG	Cake	on request	RP103B-C	It is widely used for digestion of proteins, including DNases and RNases during nucleic acid preparations without
	Solution	1 ml (20 mg/ml)	RP107B-1	compromising the integrity of the isolated DNA or RNA. Proteinase K is fully active under denaturing
		5 ml (20 mg/ml)	RP107B-5	<ul> <li>conditions (e.g. in the presence of urea and/ or SDS), what makes it ideal for digesting proteins in variety of applications.</li> </ul>
		bulk	RP107B	
	Powder	100 mg	RP100N	Proteinase K NGS Grade is developed for most demanding applications.
NGS		250 mg	RP101N	Additional purification technology results in its significantly increased solubility (≥50 mg/ml), increased specific activity
CDM		1 g	RP102N	(≥35 U/mg lyophilizate; ≥ 45U/mg protein) and remarkable purity with DNA content ≤0.1 pg/mg.
		bulk	RP103N	Free of exonucleases, endonucleasesand ribonucleases.



	Product Name	Pack Size	Cat. No.	Description
	Nucleases			
NEW	Masterase	500 U (2 U/μl)	EN31-005	Masterase is a 43.3 kDa heat-labile recombinant endonuclease, derived from a cold water eukaryotic organism, expressed in <i>Pichia pastoris</i> . The enzyme displays high specific activity towards double-stranded DNA leaving single-stranded DNA or RNA undamaged in standard conditions. Masterase can be easily inactivated
	(HL-dsDNase)	2500 U (2 U/μl)	EN31-025	by heat treatment in moderate temperatures. It is intended for applications where the presence of dsDNA influences experiments' results in thermo-sensitive applications. The enzyme hydrolyzes phosphodiester linkages yielding oligonucleotides with a 5'-phosphate and a 3'-hydroxyl groups.
NEW	Saltonase	5000 U (20 U/μl)	EN32-050	Saltonase is a 28.4 kDa, cold-active, heat-labile recombinant endonuclease produced in <i>E.coli</i> . Saltonase originates from psychrophilic bacteria and effectively digests all types of DNA and RNA substrates in different buffer conditions and a broad range of temperatures. It is very active in demanding
	(HL-Nuclease)	25 000 U (20 U/μl)	EN32-250	conditions, including low temperatures and environment with high salt content. These features make Saltonase extremely useful for removing undesired nucleic acids contamination during purification of proteins in laboratory and manufacturing workflows.
NEW	<b>DNaseMe</b> (dsDNase)	5000 U (20 U/μl)	EN33-050	DNaseMe is a 42.8 kDa recombinant endonuclease, derived from marine amphipods, expressed in <i>Pichia</i> <i>pastoris</i> . The enzyme displays high specific activity towards double-stranded DNA leaving single-stranded DNA or RNA undamaged in standard conditions. DNaseMe is highly active in a broad spectrum of temperatures, buffer conditions and pH. The specific activity is similar to bovine DNase I however, DNaseMe is characterized
		25 000 U (20 U/μl)	EN33-250	by higher stability in demanding reaction and storage conditions (e.g. high salt and detergent containing buffers, elevated temperature). These features make DNaseMe extremely useful for rapid and "RNA safe" degradation of genomic DNA, where absence of ribonucleases is critical to maintain the integrity of RNA. The enzyme hydrolyzes phosphodiester linkages yielding oligonucleotides with a 5'-phosphate and a 3'-hydroxyl groups.
	RNase A (DNase-free)	50 mg	RP145	The Ribonuclease A is a 13.7 kDa (monomer) endoribo- nuclease isolated from bovine pancreas, which selectively cleaves single-stranded RNA 3' next to pyrimidine residues (cytosine, uracil). The RNase A is used to remove RNA during the isolation procedures of plasmid and genomic DNA. The enzyme is very active under a wide range of reaction conditions and difficult to inactivate.
	PNaso H	250 U (5 U/μl)	RT34-025	RNase H is a 18.9 kDa recombinant endoribonuclease, which hydrolyses specifically the phosphodiester bonds of RNA hybridized to DNA. The enzymes does not degrade single and double-stranded DNA or unhybridized RNA. It is a key enzyme
		1250 U (5 U/μl)	RT34-125	in the removal of mRNA after first-strand cDNA synthesis. Treating cDNA with RNase H prior to PCR can improve sensitivity as RNA bonded to the cDNA template may prevent binding of the amplification primers in a PCR reaction.

Product Name	Pack Size	Cat. No.	Description
Other Enzymes & F	Proteins		
T4 DNA Ligase	500 U	EN11-050	ATP-dependent recombinant enzyme used for molecular cloning, site-directed mutagenesis, nick
	2500 U	EN11-250	repair in duplex DNA, RNA or DNA/RNA hybrids, Ligation Mediated PCR; concentration 5 U/µl; Weiss U.
Quick Ligase	50 rxns	EN12-050	ATP-dependent recombinant T4 DNA ligase for efficient ligation of DNA fragments with compatible
	150 rxns	EN12-150	cohesive or blunt ends in 5 and 15 minutes respectively. PEG included.
Tth DNA Ligase	250 U (3750 CEU) (5 U/μl)	EN13-025	NAD-dependent recombinant ligase from <i>Thermus</i> thermophilus. The ligation will occur only if oligonucleotides are perfectly paired to the complementary target DNA and have no gaps between
	2500 U (37 500 CEU) (5 U/μl)	EN13-250	<ul> <li>them. Therefore, a single-base substitution can be detected. High thermostability allows ligation using high-stringency hybridization conditions. High specificity and stringency permits sensitive detection of SNPs. Equivalent of Ampligase<sup>®</sup> (Epicentre).</li> </ul>
UDGase	500 U	EN19-050	Uracil DNA Glycosylase (UDG) catalyzes the release of uracil from uracil-containing single-stranded
	2500 U	EN19-250	<ul> <li>or double-stranded DNA, but not from RNA or oligonucleotides. Widely used to control carry-over contamination in PCR; concentration 1 U/µl.</li> </ul>
phi29 DNA Polymerase	1000 U (10 U/µl)	EN20-010	Very processive polymerase (up to 70 kb) with strong strand displacement activity, which allows for highly efficient isothermal DNA amplification; possesses
	5000 U (10 U/μl)	EN20-050	a 3'→5' exonuclease (proofreading) activity acting preferentially on ssDNA or RNA, therefore 3'-modified primers are recommended.
TRANSCRIPTME M-MuLV Reverse Transcriptase	10 000 U (200 U/µl)	RT32-010	Modified M-MuLV Reverse Transcriptase; 10 pg – 5 $\mu$ g of total RNA; concentration 200 U/µl; has increased thermal stability (optimum activity at 50°C); has no
	50 000 U (200 U/μl)	RT32-050	3'→5' exonuclease and reduced RNase H activity, which improves the synthesis of a full-length cDNA, even from long mRNA templates, using random priming; gives high yields of first strand cDNA up to 10 kb long.
<b>RIBOPROTECT</b> <b>Hu RNase Inhibitor</b> IMPROVED STABILITY!	2000 U (40 U/μl)	RT35-020	RIBOPROTECT Hu RNase Inhibitor is a 50 kDa recombinant human placental protein expressed in Escherichia coli. It inhibits ribonuclease (RNase) activity of common eukaryotic enzymes such as RNase A, RNase B, RNase C. RIBOPROTECT Hu is intended for use in applications where the proseco of PNases
	10 000 U (40 U/μl)	RT35-100	<ul> <li>use in applications where the presence of RNases may cause a hazard to RNA quality and experiment results, e.g. in RNA isolation, cDNA synthesis, RT-PCR, in vitro transcription and translation, or RNase-free monoclonal antibody preparation. Stable up to 58°C and at min. 0.5 – 1 mM DTT concentration ranges.</li> </ul>
BSA (Bovine	10 g	EN17-010	A highly pure Albumin (Fraction V) recommended for a variety of applications where quality is required;
Serum Albumin)	100 g	EN17-100	purity >98%; free of nucleases and proteases; soluble in water; pH (10% in water at 25°C) 6.5–7.5.

# **ELECTROPHORESIS**

Product Name	Pack Size	Cat. No.	Description	
Agaroses				
Agaraga LE Standard	100 g	AG41-010	For the routine gel electrophoresis	
Agarose LE Standard	500 g	AG41-050	<ul> <li>of a wide range of DNA fragments (100-25.000 bp).</li> </ul>	
Agarose HR High resolution	50 g	AG42-005	Agarose suitable for separation of small	
Agarose nic night resolution	100 g	AG42-010	DNA fragments between 20-800 bp.	
Agarose LM Low Melting	50 g	AG43-005	Agarose for preparative electrophoresis and the recovery of DNA and RNA.	
DNA Ladders				
M50pz DNA Ladder ready-to-use	50 – 100 lanes	MR201	50–1000 bp	
IDEAL II DNA Ladder ready-to-use	50 – 100 lanes	MR25	700–9200 bp	
M50-1500 FAST DNA Ladder ready-to-use	50 – 100 lanes	MR27	50, 200, 400, 800, 1500 bp	
Protein Ladder				
<b>3-Colour Prestained Protein</b> Marker (10-245 kDa)	500 µl	PM30-500	Three colour prestained protein marker with 12 lanes in range of 10–245 kDa.	
DNA Gel Loading Buffers				
6x GREEN	1 ml	AG18	DNA Gel Loading Dye is a pre-mixed loading buffer with a tracking dye	
6x BLUE	1 ml	AG16	for agarose and non-denaturin polyacrylamide gel electrophoresis.	

# **EDUCATIONAL KITS**

Product Name	Pack Size	Cat. No.	Description
Edu Kits – PCR Technie	que		
FacutOCD VV	1 lab class (6 sets)	DY10A	Educational kit for human sex
EasyPCR XY	5 lab classes (6 sets)	DY105A	determination with the use of PCR.
EasyPCR XY	1 lab class (6 sets)	DY10	Educational kit for DNA isolation and
+ DNA isolation	5 lab classes (6 sets)	DY105	human sex determination.
	1 lab class (6 sets)	DY25A	Educational kit for determination of
EasyPCR HIV	5 lab classes (6 sets)	DY255A	HIV resistance by PCR reaction.
EasyPCR HIV	1 lab class (6 sets)	DY25	Educational kit for DNA isolation
+ DNA isolation	5 lab classes (6 sets)	DY255	by PCR reaction.
Edu Kits – Genotyping	;		
EasyGenotyping	1 lab class (6 sets)	DY87	Educational kit for bacterial
PCR-RFLP	5 lab classes (6 sets)	DY875	<ul> <li>strain genotyping with the use of PCR-RFLP technique.</li> </ul>
EasyGenotyping	1 lab class (6 sets)	DY62	Educational kit for bacterial strain
ITS PCR	5 lab classes (6 sets)	DY625	<ul> <li>genotyping with the use of ribotyping technique.</li> </ul>

# **BIOCHEMICALS**

Product Name	Pack Size	Cat. No.	Description
	5 g	B35	IPTG (isopropyl-β-D-1-thiogalactopyranoside) is a chemical analog of lactose, wh is not hydrolysed by β-galactosidase. It is used during the expression of recombin
<b>IPTG</b> (dioxane free)	25 g	B325	protein in a Tabor-Studier as an inducer of the lac promoter. IPTG is also used in combination with X-Gal in the screening of recombinant clones of <i>E. coli</i> based on the known plasmid pUC18/19 system for selecting the white/blue colonies.



#### NOTES



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