## Product List / 2021





Enzymes As You Need

PROMOCIJA

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#### Product List / 2021

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#### $\mathbf{DNA}\,\varTheta\,\mathbf{RNA}$ isolation kits

| Product Name   | Pack Size | Cat. No. | Description   |
|--|-----------|----------|---|
| GENOMIC DNA Isolatio                                   | on Kits   |          |   |
| NA AKCIJI<br>EXTRACTME<br>GENOMIC DNA KIT<br>universal | 50 preps  | EM13-050 | Purification of genomic, mitochondrial, bacterial,<br>parasite or viral DNA from solid tissues, physio-<br>logical fluids (urine, cerebrospinal fluid,<br>peritoneal fluid, pleural fluid, sputum), fresh and |
|  | 250 preps | EM13-250 | frozen blood, mucosa membrane swabs (including<br>buccal, nasal, pharyngeal and vaginal swabs),<br>semen, hair, rodent tails, insects, bacteria, yeast<br>and cell cultures.                                  |
| NA AKCIJI  | 50 preps  | EM03-050 | Purification of high quality DNA from solid tissues (fresh, frozen, formalin-preserved or paraffin-   |
| DNA TISSUE KIT   | 250 preps | EM03-250 | -embedded), physiological fluids, hair, rodent tails, insects and cell cultures.  |
| EXTRACTME  | 50 preps  | EM05-050 | Purification of high quality (genomic, mitochon-<br>drial and viral) DNA from whole blood (fresh or   |
| DNA BLOOD KIT  | 250 preps | EM05-250 | frozen, human or other mammalian), plasma, serum, buffy coats, lymphocytes and body fluids.   |
| EXTRACTME<br>DNA SWAB & SEMEN KIT                      | 50 preps  | EM06-050 | Purification of high quality DNA from human and animal mucosa membrane swabs (including   |
|  | 250 preps | EM06-250 | buccal, nasal, pharyngeal and vaginal swabs) as well as from semen.   |



| Pack Size | Cat. No.   | Description  |
|-----------|--|--|
|           |  |  |
| 50 preps  | EM39-050   | Rapid and efficient purification of high-quality<br>viral RNA from swabs. The kit is specifically<br>designed to isolate viral nucleic acid from<br>a variety of RNA viruses. The isolation protoco<br>and buffer formulation were optimized for high  |
| 250 preps | EM39-250   | isolation efficiency and RNA purity. RNA binding<br>capacity: ~120 µg. Purified RNA is eluted with the<br>use of low ionic strength buffer and may be used<br>directly in all downstream applications, such as<br>RT-PCR, RT-qPCR, cDNA synthesis.   |
| 50 preps  | EM09.2-050   | Improved kit for rapid, efficient purification of high quality total RNA from up to 30 mg of tissue  |
| 250 preps | EM09.2-250   | <ul> <li>(fresh or frozen), or up to 10<sup>7</sup> cultured cells. RNA<br/>binding capacity: ~230 µg. Significantly improved<br/>RNA yields and shortened processing time.</li> </ul>   |
| 50 preps  | EM12-050   | For rapid, phenol-free extraction of RNA highly<br>enriched in short RNA strands (< 200 nt). Superior<br>yields and purity. Suitable for wide range of cells<br>tissues (including blood). This kit also allows par-<br>allel extraction of high quality long RNA strands  |
| 250 preps | EM12-250   | (>200 nt) from the game sample. The kit con<br>three different types of columns: first one for<br>removal, second one for purification of long<br>and third one for purification of short RNA.   |
| 50 preps  | EM15-050   | Rapid, simultaneous isolation of high qu<br>genomic DNA and total RNA from a si<br>biological sample, from up to 30 mg of ti   |
| 250 preps | EM15-250   | or up to 10 <sup>7</sup> cultured cells. This kit is ideal for<br>researchers interested in studying the genome<br>and the transcriptome of a single sample.   |
| 50 preps  | EM31.1-050   | Rapid and efficient purification and concentration of high quality RNA from tissue or cultured cells   |
| 250 preps | EM31.1-050   | in a micro-spin column format (elution volume from 5 µl).  |
| 200 ml    | EM30-200   | Ready-to-use reagent for the isolation of separate<br>fractions of RNA, DNA and proteins from cell and<br>tissue samples of human, animal, plant, yeast, or<br>bacterial origin, within one hour.  |
| 100 pcs   | HPLM100 /<br>HPLM100A  | 2 ml bead-beating tubes with 1 g ceramic filling (1.4 mm) for soft tissue homogenization   |
| 500 pcs   | HPLM500 /<br>HPLM 500A   | Lysing Matrix D equivalent. Two different tube<br>shapes that will fit to any bead-beater.   |
|           | 50 preps<br>250 preps<br>50 preps<br>250 preps | 50 preps       EM39-050         250 preps       EM39-250         50 preps       EM09.2-050         50 preps       EM09.2-050         250 preps       EM09.2-250         50 preps       EM12-050         250 preps       EM12-050         50 preps       EM12-050         50 preps       EM15-050         50 preps       EM15-050         250 preps       EM31.1-050         250 preps       EM31.1-050         200 ml       EM30-200         100 pcs       HPLM100 /<br>HPLM100A |



| Product Name                         | Pack Size                  | Cat. No.   | Description  |  |  |
|--------------------------------------|----------------------------|------------|--|--|--|
| PLASMID DNA Isolatio                 | PLASMID DNA Isolation Kits |            |  |  |  |
| <i>EXTRACTME</i><br>PLASMID MINI KIT | 50 preps                   | EM01.1-050 | Mini-scale extraction of plasmid DNA from broth<br>culture or frozen cell pellets of recombinant<br>- Escherichia coli strains. Higher vields – column |  |  |
|                                      | 250 preps                  | EM01.1-250 | binding capacity 60 µg pDNA; one protocol for high/low copy plasmids.  |  |  |
| EXTRACTME<br>PLASMID MIDI KIT        | 10 preps                   | EM16-010   | Ultrapure, transfection-grade plasmid DNA<br>isolation in medium scale (50–300 ml of<br>bacterial culture); yield: 200–600 µg DNA from                 |  |  |
|                                      | 25 preps                   | EM16-025   | 100 ml culture; isolation time: 120–130 minutes<br>(with DNA precipitation); centrifugation steps:<br>6000 x g (no need to have ultracentrifuge).      |  |  |
| EXTRACTME<br>PLASMID MAXI KIT        | 10 preps                   | EM18-010   | Ultrapure, transfection-grade plasmid DNA<br>isolation in large scale (200–1000 ml of bacterial<br>culture); yield: 1–1.5 mg DNA from 400 ml culture;  |  |  |
|                                      | 25 preps                   | EM18-025   | isolation time: 140–150 minutes (with DNA precipitation); centrifugation steps: 6000 x g (no need to have ultracentrifuge).                            |  |  |

| Product Name                            | Pack Size  | Cat. No.   | Description  |
|---|------------|------------|--|
| DNA Fragments Purifica                  | ation Kits |            |  |
| NA AKCIJI                               | 50 preps   | EM07.1-050 | New upgraded kit for DNA purification after<br>enzymatic reactions; the kit enables the<br>purification of DNA fragments from 50 bp to<br>20 kb, as well as plasmid and genomic DNA; |
| DNA CLEAN-UP KIT                        | 250 preps  | EM07.1-250 | significall improved recovery: up to 99%<br>(depending on DNA fragment length); binding<br>capacity: approx. 40 µg DNA; time required:<br>10 min for 6 PCR purifications.            |
| EXTRACTME DNA<br>CLEAN-UP & GEL-OUT KIT | 50 preps   | EM26.1-050 | DNA purification after enzymatic reactions & DNA<br>fragments isolation directly from agarose gels –   |
|   | 250 preps  | EM26.1-250 | two options in one kit.  |



| Product Name                          | Pack Size | Cat. No.    | Description   |
|---------------------------------------|-----------|-------------|---|
| Mini Spin Columns                     |           |             |   |
| DNA CLEAN-UP<br>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<br>mini spin columns      | 50 pcs    | EM08C-050   | Mini spin columns with silica resin with 2 ml receiving tubes used in EM26.1 kits.              |
| PLASMID DNA<br>mini spin columns      | 50 pcs    | EM01.1C-050 | Mini spin columns with silica resin with 2 ml receiving tubes used in EM01.1 kit.               |
| SWAB & SEMEN DNA<br>mini spin columns | 50 pcs    | EM06C-050   | Mini spin columns with silica resin with 2 ml receiving tubes used in EM06 kit.                 |
| GENOMIC DNA<br>mini spin columns      | 50 pcs    | EM13C-050   | Mini spin columns with silica resin with 2 ml<br>receiving tubes used in EM03, EM05, EM13 kits. |
| TOTAL RNA<br>mini spin columns        | 50 pcs    | EM09.1C-050 | Mini spin columns with silica resin with 2 ml receiving tubes used in EM09.1 and EM15 kits.     |
| miRNA<br>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 used in EM31 kits.       |

#### **REAL-TIME PCR MASTER MIXES**

| Product Name  | Pack Size | Cat. No.   | Description   |
|---|-----------|------------|---|
| <b>AMPLIFY</b> ME   | 200 rxns  | AM01-020   | The AMPLIFYME SG No-ROX Mix is a convenient<br>enzyme mixture for fast and reliable quantitative<br>Real-Time PCR, using SG dsDNA-binding dye.  |
| SG No-ROX Mix   | 2000 rxns | AM01-200   | Compatible with qPCR instruments that don't need ROX dye.   |
| NA AKCIJI<br>Amplifyme                                      | 200 rxns  | AM02-020   | The AMPLIFYME SG Universal Mix is a convenient<br>enzyme mixture for fast and reliable quantitative<br>Real-Time PCR, using SG dsDNA-binding dye.   |
| SG Universal Mix  | 2000 rxns | AM02-200   | Compatible with all types of qPCR instruments.<br>Additional tubes with low and high concentration of<br>ROX are included.  |
| <b>AMPLIFY</b> ME   | 200 rxns  | AM04-020   | Convenient enzyme mixture for fast and reliable<br>qPCR using probes, including TaqMan®, Scorpions®<br>and molecular beacon probes. It is the best choice<br>for your probe based Real-Time PCR assays, including   |
| Probe No-ROX Mix  | 2000 rxns | AM04-200   | singleplex and multiplex gene expression studies,<br>genotyping experiments or diagnostic assays.<br>Compatible with qPCR instruments that don't need<br>ROX dye.   |
| NA AKCIJI<br>Amplifyme                                      | 200 rxns  | AM05-020   | The AMPLIFYME Probe Universal Mix is a convenient<br>enzyme mixture for fast and reliable qPCR using<br>probes, including TaqMan <sup>®</sup> , Scorpions <sup>®</sup> and molecular<br>beacon probes. It is the best choice for your probe<br>based Real-Time PCR assays, including singleplex |
| Probe Universal Mix   | 2000 rxns | AM05-200   | and multiplex gene expression studies, genotyping<br>experiments or diagnostic assays. Universal –<br>compatible with all types of qPCR instruments.<br>Additional tubes with low and high concentration of<br>ROX are included.  |
| One-Step  |           |            |   |
| AMPLIFYME<br>Probe One-Step                                 | 100 rxns  | AM08.1-100 | Ready-to-use, 2x concentrated Mix contains all<br>ingredients necessary for Real-Time PCR based<br>on probe detection technology: hot-start Taq<br>polymerase, dNTPs, specially developed buffer,   |
| No-ROX RT-qPCR Mix  | 500 rxns  | AM08.1-500 | stabilizers and enhancers. Additionally, Mu-MLV<br>Reverse Transcriptase and RNase Inhibitor are<br>included in separate tubes.   |
| <i>AMPLIFYME</i><br>Probe One-Step<br>Universal RT-qPCR Mix | 100 rxns  | AM09.1-100 | Ready-to-use, 2x concentrated Mix contains all<br>ingredients necessary for Real-Time PCR based<br>on probe detection technology: hot-start Taq<br>polymerase, dNTPs, specially developed buffer,   |
|   | 500 rxns  | AM09.1-500 | stabilizers and enhancers. Additionally, Mu-ALV<br>Reverse Transcriptase and RNase Inhibitor and ROX<br>solution are included in separate tubes.  |

### PCR REAGENTS

| Product Name                             | Pack Size         | Cat. No.                   | Description   |
|--|-------------------|----------------------------|---|
| Thermostable D                           | NA polymerases    | from Therm                 | <i>us aquaticus (Taq</i> Polymerases)   |
| TagNova                                  | 200 U (5 U/µl)    | RP702A                     | <ul> <li>Tag DNA Polymerase suited to a wide range of</li> </ul>  |
|  | 500 U (5 U/μl)    | RP705A                     | applications, fast and very efficient; universal and<br>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<br>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<br>recombinant, thermostable Taq DNA polymerase<br>isolated from Thermus aquaticus. It is recommended<br>for a wide range of applications which require DNA<br>synthesis at extremely high temperatures.  |
| <i>TaqNova</i><br>DNA-free<br>Polymerase | 1000 U (5 U/µl)   | RP1010                     | TaqNova DNA-free Polymerase is an universal and<br>easy-to-use DNA polymerase that works rapidly and<br>effectively in various PCR conditions. It is highly<br>purified from DNA contaminants (≤ 1 <i>E. coli</i> genome<br>in 1 U of enzyme), enabling amplification of very   |
| NA AKCIJI 📃                              | 100 U/µl          | RP1000HC<br>(upon request) | conserved sequences (e.g. bacterial 165 rRNA region)<br>without risk of false positive PCR results.<br>The enzyme catalyzes DNA synthesis in a 5' $\rightarrow$ 3'<br>direction, shows no 3' $\rightarrow$ 5' exonuclease activity, but<br>has a 5' $\rightarrow$ 3' exonuclease activity.  |
| 2x PCR                                   | 100 rxns (50 µl)  | RP85T                      | 2x concentrated, ready-to-use PCR master mix with   |
| TaqNova-RED                              | 1000 rxns (50 µl) | RP85T-10                   | <ul> <li>TaqNova polymerase, that facilitates an easy and<br/>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<br>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><br>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  |
|-------------------------|-----------|----------|--|
| PCR Enhancers           |           |          |  |
|                         | 100 rxns  | RP50     | PCR additive used for elimination of<br>PCR inhibitors coextracted with DNA;   |
| PCR Anty-inhibitor      | 500 rxns  | RP51     | amplification of problematic templates,<br>isolated from: urine, stool, saliva, sputum,<br>blood, swabs, biopsy materials etc.                     |
| Deoxyribonucleotides (d | NTPs)     |          |  |
| dNTPs MIX 10 mM Total   | 1 ml      | RP63     | Deoxyribonucleotides Mix (2.5 mM dATP,<br>2.5 mM dCTP, 2.5 mM dGTP, 2.5 mM dTTP);<br>ultra-pure; supplied as lithium salts (greater<br>stability). |
| dNTPs MIX 40 mM Total   | 1 ml      | RP64     | Deoxyribonucleotides Mix (10 mM dATP,<br>10 mM dCTP, 10 mM dGTP, 10 mM dTTP);<br>ultra-pure; supplied as lithium salts (greater<br>stability).     |
| dNTPs MIX 100 mM Total  | 1 ml      | RP65     | Deoxyribonucleotides Mix (25 mM dATP,<br>25 mM dCTP, 25 mM dGTP, 25 mM dTTP);<br>ultra-pure; supplied as lithium salts (greater<br>stability).     |

#### **REVERSE TRANSCRIPTION**

| Product Name   | Pack Size              | Cat. No.       | Description   |
|--|------------------------|----------------|---|
| NA AKCIJI  |                        |                |   |
| TRANSCRIPTME<br>RNA KIT cDNA                               | 20 rxns                | RT31-020       | 10 pg – 5 μg of total RNA; optimal reaction temp. 50°C<br>contains Enzyme Mix (Reverse Transcriptase and RNas   |
| synthesis kit  | 100 rxns               | RT31-100       | Inhibitor); 2x Master Mix (oligo(dT) primers, randor hexamers, dNTPs, $MgCl_2$ ) and RNase H.   |
| <i>TRANSCRIPTME</i><br>M-MuLV Reverse                      | 10 000 U<br>(200 U/μl) | RT32-010       | Modified M-MuLV Reverse Transcriptase; 10 pg – 5 $\mu$<br>of total RNA; has increased thermal stability (opt<br>mum activity at 50°C); has no 3' $\rightarrow$ 5' exonucleas<br>and reduced RNase H activity, which improves th   |
| Transcriptase  | 50 000 U<br>(200 U/μl) | RT32-050       | synthesis of a full-length cDNA, even from long mRN<br>templates, using random priming; gives high yields o<br>first strand cDNA up to 10 kb long.  |
| <i>TRANSCRIPTME</i><br>LYO M-MuLV Reverse<br>Transcriptase | 100 000 U              | RT32L-100      | Lyophilized version of M-MuLV Reverse Transcriptase<br>increased thermal stability, that allows the reactio<br>to be carried out at a higher temperature (optimur<br>activity at 50°C); has no 3'··5' exonuclease or RNase<br>activity, which improves the synthesis of a full-lengt<br>cDNA, even from long mRNA templates, using randor<br>priming; gives high yields of first strand cDNA up t<br>7 kb long.   |
|  | 250 U<br>(5 U/μl)      | RT34-025       | RNase H is a 18.9 kDa recombinant endoribonucle<br>which hydrolyses specifically the phosphodie<br>bonds of RNA hybridized to DNA.The enzymes of<br>not degrade single and double-stranded DNA or uu<br>bridized RNA. It is a key enzyme in the removal of m<br>after first-strand cDNA synthesis. Treating cDNA<br>RNase H prior to PCR can improve sensitivity as<br>bonded to the cDNA template may prevent bindin<br>the amplification primers in a PCR reaction. |
| RNase H  | 1250 U<br>(5 U/μl)     | RT34-125       |   |
| <b>RIBO</b> PROTECT  | 2000 U<br>(40 U/µl)    | RT35-020       | <b>RIBOPROTECT Hu</b> RNase Inhibitor is a 50 kDa reco<br>nant human placental protein expressed in <i>Esche</i><br><i>coli</i> . It inhibits ribonuclease (RNase) activity of con<br>eukaryotic enzymes such as RNase A, RNase B, RN.<br><b>RIBOPROTECT Hu</b> is intended for use in applica  |
| Hu RNase Inhibitor<br>IMPROVED STABILITY!                  | 10 000 U<br>(40 U/μl)  | RT35-100       | where the presence of RNases may cause a hazard t<br>RNA quality and experiment results, e.g. in RNA iso<br>lation, cDNA synthesis, RT-PCR, in vitro transcriptio<br>and translation, or RNase-free monoclonal antibod<br>preparation. Stable up to 58°C and at min. 0.5 – 1 m/<br>DTT concentration ranges.  |
| RIBOPROTECT  | 10 000 U               | RT35L-010      | Formulation of <b>RIBOPROTECT</b> Hu Lyo-ready RNas<br>Inhibitor (glycerol-free) enables its usage directl<br>in the lyophilization process. <b>RIBOPROTECT</b> Hu Lyo  |
| <i>Hu</i> RNase Inhibitor<br>Lyo-ready                     | (40 U/µl)              | RT35L-B (bulk) | ready is recombinant human placental RNase inhibit<br>expressed in <i>E. coli</i> strain that completely inhibits RNas<br>A, B, and C activity. Stable at least 4 weeks at 37°C<br>up to 3 freeze/thaw cycles acceptable.   |

#### ENZYMES & PROTEINS

| Product Name | Form     | Pack Size          | Cat. No. | Description   |
|--------------|----------|--------------------|----------|---|
| Proteinase K |          |                    |          |   |
|              |          | 100 mg             | RP100B   | Recombinant Proteinase K from   |
|              | Powder   | 250 mg             | RP101B   | Tritirachium album expressed in Pichia<br>pastoris is a broad spectrum serine<br>protease. Our recombinant Proteinase K is  |
|              | Powder   | 1000 mg            | RP102B   | extensively purified to give highly active<br>preparation devoid of any detectable<br>nuclease activities.  |
| NA AKCIJI    |          | bulk               | RP103B   | It is widely used for digestion of proteins,<br>including DNases and RNases during<br>nucleic acid preparations without   |
| MBG          | Cake     | on request         | RP103B-C | compromising the integrity of the isolated<br>DNA or RNA.<br>Proteinase K is fully active under denaturing  |
|              |          | 1 ml<br>(20 mg/ml) | RP107B-1 | conditions (e.g. in the presence of urea and/<br>or SDS), what makes it ideal for digesting<br>proteins in variety of applications.<br>Solubility in water ≥20 mg/ml; |
|              | Solution | 5 ml<br>(20 mg/ml) | RP107B-5 | Activity ≥ 30 U/mg lyophilizate ;<br>Specific activity ≥ 40 U/mg protein;<br>≥ 800 U/ml liquid;   |
|              |          | bulk               | RP107B   | DNA content ≤ 10 pg/mg.   |
| NGS          |          | 100 mg             | RP100N   | Proteinase K NGS Grade is developed for most demanding applications.  |
|              | Deveder  | 250 mg             | RP101N   | Additional purification technology results<br>in its significantly increased solubility<br>(≥50 mg/ml), increased specific activity                                   |
|              | Powder   | 1 g                | RP102N   | (≥35 U/mg lyophilizate; ≥ 45U/mg protein)<br>and remarkable purity with DNA content<br>≤0.1 pg/mg.  |
|              |          | bulk               | RP103N   | Free of exonucleases, endonucleasesand ribonucleases.   |



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

| Product Name   | Pack Size                          | Cat. No.  | Description   |
|--|------------------------------------|-----------|---|
| Other Enzymes & ၊                                      | Proteins                           |           |   |
| T4 DNA Ligase  | 500 U                              | EN11-050  | ATP-dependent recombinant enzyme used fo<br>molecular cloning, site-directed mutagenesis, nic<br>repair in duplex DNA, RNA or DNA/RNA hybrid<br>Ligation Mediated PCR; concentration 5 U/µl<br>Weiss U.   |
|  | 2500 U                             | EN11-250  |   |
| Quick Ligase   | 50 rxns                            | EN12-050  | ATP-dependent recombinant T4 DNA ligase fo<br>efficient ligation of DNA fragments with compatibl<br>cohesive or blunt ends in 5 and 15 minute<br>respectively. PEG included.  |
|  | 150 rxns                           | EN12-150  |   |
| Tth DNA Ligase   | 250 U<br>(3750 CEU)<br>(5 U/μl)    | EN13-025  | NAD-dependent recombinant ligase from<br>Thermus thermophilus. The ligation will occu-<br>only if oligonucleotides are perfectly paired t<br>the complementary target DNA and have no gap<br>between them. Therefore, a single-base substitutio<br>can be detected. High thermostability allows ligatio<br>using high-stringency hybridization condition:<br>High specificity and stringency permits sensitiv<br>detection of SNPs. Equivalent of Ampligase<br>(Epicentre). |
|  | 2500 U<br>(37 500 CEU)<br>(5 U/µl) | EN13-250  |   |
| UDGase   | 500 U                              | EN19-050  | Uracil DNA Glycosylase (UDG) catalyzes the releas<br>of uracil from uracil-containing single-strande<br>or double-stranded DNA, but not from RNA c<br>oligonucleotides. Widely used to control carry-ove<br>contamination in PCR; concentration 1 U/µl.   |
|  | 2500 U                             | EN19-250  |   |
| phi29<br>DNA Polymerase                                | 1000 U<br>(10 U/μl)                | EN20-010  | Very processive polymerase (up to 70 kb) with stror<br>strand displacement activity, which allows for high<br>efficient isothermal DNA amplification; possesse<br>a 3'→5' exonuclease (proofreading) activity actir<br>preferentially on ssDNA or RNA, therefore 3'-mod<br>ified primers are recommended.   |
|  | 5000 U<br>(10 U/μl)                | EN20-050  |   |
| <i>TRANSCRIPTME</i><br>M-MuLV Reverse<br>Transcriptase | 10 000 U<br>(200 U/μl)             | RT32-010  | Modified M-MuLV Reverse Transcriptase; 10 pg-5 j<br>of total RNA; concentration 200 U/µl; has increase<br>thermal stability (optimum activity at 50°C); has n<br>3'-5' exonuclease and reduced RNase H activit<br>which improves the synthesis of a full-length cDN<br>even from long mRNA templates, using rando<br>priming; gives high yields of first strand cDNA o<br>to 10 kb long.  |
|  | 50 000 U<br>(200 U/μl)             | RT32-050  |   |
| TRANSCRIPTME<br>LYO M-MuLV Reverse<br>Transcriptase    | 100 000 U                          | RT32L-100 | Lyophilized version of M-MuLV Rever:<br>Transcriptase; increased thermal stability, th<br>allows the reaction to be carried out at a higher ter<br>perature (optimum activity at 50°C); has no 3'→<br>exonuclease or RNase H activity, which improve<br>the synthesis of a full-length cDNA, even from lon<br>mRNA templates, using random priming; gives hig<br>yields of first strand cDNA up to 7 kb long.   |



| Product Name   | Pack Size             | Cat. No.       | Description  |
|--|-----------------------|----------------|--|
| Other Enzymes & I  | Proteins              |                |  |
| <b>RIBOPROTECT</b><br><b>Hu RNase Inhibitor</b><br>IMPROVED STABILITY! | 2000 Ս<br>(40 Ս/µl)   | RT35-020       | <b>RIBOPROTECT</b> Hu RNase Inhibitor is a 50 kDa<br>recombinant human placental protein expressed<br>in <i>Escherichia coli</i> . It inhibits ribonuclease (RNase)<br>activity of common eukaryotic enzymes such<br>as RNase A, RNase B, RNase C. <i>RIBOPROTECT</i> Hu<br>is intended for use in applications where the<br>presence of RNases may cause a hazard to RNA<br>quality and experiment results, e.g. in RNA isolation,<br>cDNA synthesis, RT-PCR, in vitro transcription<br>and translation, or RNase-free monoclonal<br>antibody preparation. Stable up to 58°C and at<br>min.0.5 – 1 mM DTT concentration ranges. |
|  | 10 000 U<br>(40 U/μl) | RT35-100       |  |
| <i>RIBO</i> PROTECT<br>Hu RNase Inhibitor<br>Lyo-ready                 | 10 000 U<br>(40 U/μl) | RT35L-010      | Formulation of <i>RIBOPROTECT Hu</i> Lyo-ready RNase<br>Inhibitor (glycerol-free) enables its usage directly<br>in the lyophilization process. <i>RIBOPROTECT Hu</i><br>Lyo-ready is recombinant human placental RNase<br>inhibitor expressed in <i>E. coli</i> strain that com-<br>pletely inhibits RNase A, B, and C activity. Stable at<br>least 4 weeks at 37°C; up to 3 freeze/thaw cycles<br>acceptable.   |
|  |                       | RT35L-B (bulk) |  |

#### NOTES

# **Sirt**

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