

Life Science Research 2025



**NZYtech**  
genes & enzymes

## Your Partner for Life Sciences



NZYtech designs, manufactures and supplies high performing polymerases, kits and master mixes to life science research laboratories and biotechnology companies worldwide. With a foundation in cutting-edge research and development, NZYtech specializes in both real-time and end-point PCR, RNA & cDNA synthesis and RNA & DNA purification kits, empowering researchers in over 70 countries across five continents to achieve reliable and impactful results.

Our commitment to scientific excellence extends beyond molecular biology. NZYtech is a global leader in glycobiology, offering an extensive library of over 1,000 CAZymes alongside analytical kits for the agro-food and fermentation industries. These products provide specialized tools for a broad range of research applications.

At NZYtech, innovation is at the heart of everything we do. We are dedicated to developing novel solutions that enable life science researchers to overcome challenges, advance discoveries and push the boundaries of knowledge.

# Bulk & OEM Solutions

At NZYtech, we offer a comprehensive suite of solutions tailored to meet your molecular biology and diagnostic needs.

Our Bulk solutions provide a diverse array of enzymology and protein science products, covering applications from **End-Point** and **Real-Time PCR** to **RNA & cDNA Synthesis** and **Analyte quantification** in agro-food and biofuels industries.

Additionally, our **OEM Solutions** cater to unique requirements, enabling us to develop custom formulations and bespoke formats in bulk, while also offering private labeling, bespoke packaging, and a dedicated support team. Whether you require off-the-shelf products or personalized solutions, our commitment to excellence and innovation ensures that we provide the support and resources necessary for your success.



Personalized Proposal



Dedicated Project Manager



Bespoke Solutions



Technical Support

## Bulk

NZYtech's Bulk solutions offer a diverse range of enzymology and protein science products for molecular biology applications, including **End-Point** and **Real-Time PCR** to **RNA & cDNA Synthesis** and **Analyte quantification** in agro-food and biofuels industries. We also provide qPCR detection kits for Human, Food, and Animal testing services.

If our off-the-shelf bulk products don't fully meet your needs, we have the capability to develop **custom formulations in bulk**, ensuring a tailored solution through collaboration with our experts.



Over 1800 Standard Bulk Products



Customized Formulations by Demand



Full Confidentiality

## OEM Solutions

In addition to our off-the-shelf bulk offerings, we specialize in **custom solutions** that cater to unique requirements. If your specific needs aren't met by our existing products, our team can create custom formulations and bespoke formats in bulk.

OEM Solutions are also available, offering components and reagents for diagnostic applications in research and industry. We provide **private and white labeling**, **bespoke packaging**, **lyo-ready and lyophilized solutions in custom brand colors**.



Custom Enzymes, Master Mixes or Kits



Bespoke Packaging & Branding



Full Confidentiality

## Effortless purchasing for your labs needs



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## real-time pcr

qPCR MASTER MIXES

ONE-STEP RT-qPCR MASTER MIXES

ONE-STEP RT-qPCR KITS

qPCR COMPONENTS

# REAL-TIME PCR

## qPCR MASTER MIXES

NZYtech has long been at the forefront of real-time PCR innovation, developing and optimizing two of the most widely used fluorescent PCR chemistries: probe-detection technology (Probe Mixes) and intercalating green dye chemistry (Green Mixes). Building on this foundation, the NZYSupreme mixes offer ultra-sensitive detection with a multiple hot-start mode, while NZYSpeedy mixes deliver enhanced performance for faster PCR protocols. Our products are designed for compatibility with a variety of thermocyclers and incorporate passive reference dyes, such as ROX™ dye, to ensure accurate signal normalization. To further support sustainability and cost efficiency, NZYtech introduced lyophilized master mixes for room-temperature shipment. Now, NZYtech is proud to unveil its Ultra qPCR range, pushing the boundaries of performance and versatility with features such as ultra-multiplexing capability, exceptional sensitivity, and robust stability, setting a new benchmark in real-time PCR technology.

Choose the mix with the reference dye that is most appropriate for your instrument with the help of the qPCR Selection Guide below.

	ROX plus	ROX	(no ROX*)
<b>Agilent</b>			
AriaMX		⊗	
MX3000P™, MX3005P™, MX4000P™		⊗	
<b>Applied Biosystems™</b>			
7000/7300/7700	⊗		
7500/7500 FAST		⊗	
7900/7900HT/7900HT FAST	⊗		
QuantStudio™ 5, 6, 7, 12k Flex/ViiA7™		⊗	
StepOne™/StepOne™plus	⊗		
<b>Bio-Rad®</b>			
CFX Opus/CFX96™/CFX384™			⊗
Opticon™/Opticon™ 2			⊗
<b>Fluidigm®</b>			
BioMark™		⊗	
<b>Illumina®</b>			
Eco™			⊗
<b>Qiagen</b>			
Rotor-Gene™ 3000			⊗
Rotor-Gene™ 6000			⊗
Rotor-Gene™ Q			⊗
<b>Roche</b>			
Lightcycler® 96			⊗
Lightcycler® 480			⊗
Lightcycler® Nano			⊗

\* For qPCR instruments that require ROX reference dye, it is possible to add ROX in a separate step, according to instructions provided in the respective product brochure.

## Green Master Mixes

### Supreme qPCR

#### NZYSupreme qPCR Green Master Mix (2x)

MB41901	2 x 1 mL (200 rxns of 20 µL)	104 €
MB41902	5 x 1 mL (500 rxns of 20 µL)	230 €
MB41903	20 x 1 mL (2000 rxns of 20 µL)	692 €

#### NZYSupreme qPCR Green Master Mix (2x), ROX

MB44101	2 x 1 mL (200 rxns of 20 µL)	104 €
MB44102	5 x 1 mL (500 rxns of 20 µL)	230 €
MB44103	20 x 1 mL (2000 rxns of 20 µL)	692 €

#### NZYSupreme qPCR Green Master Mix (2x), ROX plus

MB44001	2 x 1 mL (200 rxns of 20 µL)	104 €
MB44002	5 x 1 mL (500 rxns of 20 µL)	230 €
MB44003	20 x 1 mL (2000 rxns of 20 µL)	692 €

#### NZYSupreme qPCR Green Master Mix

Hot-start like activity  
Reproducibility  
Highly sensitive

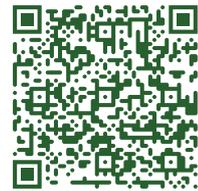


#### Benchmark Analysis

##### Benchmarking excellence in Real-Time PCR.

See how the NZYSupreme qPCR Green Master Mix outperformed 9 market-leading mixes in detecting key genes with precision and reliability.

Scan the QR code and read the full benchmark.



### Speedy qPCR

#### NZYSpeedy qPCR Green Master Mix (2x)

MB22401	2 x 1 mL (200 rxns of 20 µL)	132 €
MB22402	5 x 1 mL (500 rxns of 20 µL)	272 €
MB22403	20 x 1 mL (2000 rxns of 20 µL)	944 €

#### NZYSpeedy qPCR Green Master Mix (2x), ROX

MB22301	2 x 1 mL (200 rxns of 20 µL)	132 €
MB22302	5 x 1 mL (500 rxns of 20 µL)	272 €
MB22303	20 x 1 mL (2000 rxns of 20 µL)	944 €

#### NZYSpeedy qPCR Green Master Mix (2x), ROX plus

MB22201	2 x 1 mL (200 rxns of 20 µL)	132 €
MB22202	5 x 1 mL (500 rxns of 20 µL)	272 €
MB22203	20 x 1 mL (2000 rxns of 20 µL)	944 €

#### Benchmark Analysis

##### From Swift to Supreme.

The NZYSpeedy qPCR Green Master Mix delivers fast, precise results, while the NZYSupreme sets a new benchmark for sensitivity and specificity, outperforming gold-standard competitors.

Scan the QR code and read the full benchmark.



## Probe Master Mixes

### Supreme qPCR (1-3 targets)

#### NZYSupreme qPCR Probe Master Mix (2x)

MB41601	2 x 1 mL (200 rxns of 20 µL)	104 €
MB41602	5 x 1 mL (500 rxns of 20 µL)	230 €
MB41603	20 x 1 mL (2000 rxns of 20 µL)	692 €

#### NZYSupreme qPCR Probe Master Mix (2x), ROX

MB43801	2 x 1 mL (200 rxns of 20 µL)	104 €
MB43802	5 x 1 mL (500 rxns of 20 µL)	230 €
MB43803	20 x 1 mL (2000 rxns of 20 µL)	692 €

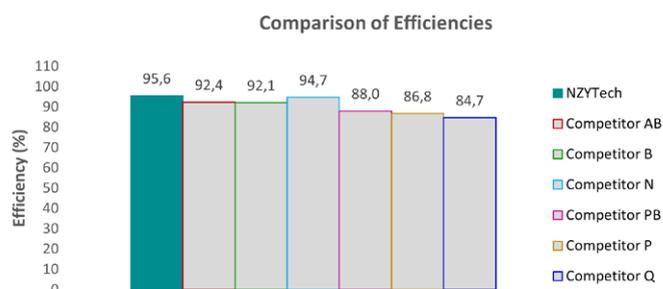
#### NZYSupreme qPCR Probe Master Mix (2x), ROX plus

MB43901	2 x 1 mL (200 rxns of 20 µL)	104 €
MB43902	5 x 1 mL (500 rxns of 20 µL)	230 €
MB43903	20 x 1 mL (2000 rxns of 20 µL)	692 €

#### Lyo NZYSupreme qPCR Probe Master Mix (2x)

MB41702	For 3 x 0.5 mL (150 rxns of 20 µL)	104 €
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#### NZYSupreme qPCR Probe Master Mix (2x)



### Benchmark Analysis

#### Setting the Gold Standard for Detection Sensitivity

Discover how NZYtech's NZYSupreme qPCR Probe Master Mix outperformed 6 market-leading probe master mixes in detection sensitivity benchmarks.

Scan the QR code and read the full benchmark.



### Supreme Multiplex qPCR (1-6 targets)

#### NZYSupreme Multiplex qPCR Probe Master Mix (2x)

MB45201	2 x 1 mL (200 rxns of 20 µL)	115 €
MB45202	5 x 1 mL (500 rxns of 20 µL)	251 €
MB45203	20 x 1 mL (2000 rxns of 20 µL)	734 €

#### LyoNZYSupreme Multiplex qPCR Probe Master Mix (2x)

MB45301	For 3 x 0.5 mL (150 rxns of 20 µL)	115 €
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#### NZYSupreme Multiplex qPCR Probe Master Mix (2x)

High efficiency

High specificity

Efficient multiplexing for up to 6 targets



#### qPCR Probes

High quality qPCR Probes starting from 115€.

Discover more on page 70.

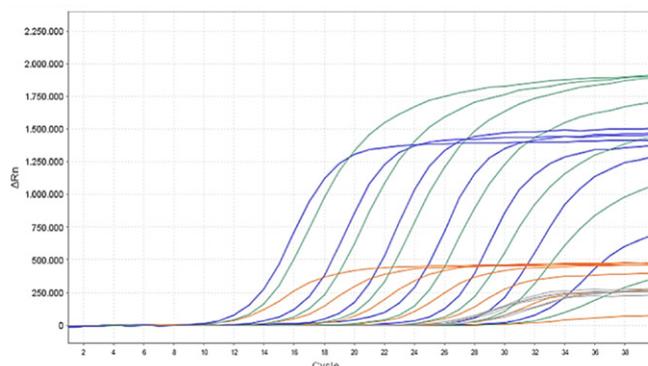


## Ultra Multiplex qPCR (1-7 targets)

### NEW NZY Ultra Multiplex qPCR Probe Master Mix 2x

MB50701	2 x 1 mL (200 rxns of 20 µL)	145 €
MB50702	5 x 1 mL (500 rxns of 20 µL)	330 €
MB50703	20 x 1 mL (2000 rxns of 20 µL)	1140 €

Performance of the NZY Ultra Multiplex qPCR Probe Master Mix to detect different pathogens at different concentrations (from  $5 \times 10^7$  to 5 copies per reaction): High accuracy and sensitivity in a 7-plex assay using synthetic DNAs for four respiratory viruses as well as an endogenous control.



Detection of two genes of SARS-CoV-2 virus (RdRp and N genes – blue curves), Influenza A (M1 gene – green curves) and Influenza B (NS2 gene, green curves), RSV (L gene, Subtypes A and B), and human Ribonuclease P (RNaseP gene – grey curves).

## NZY Ultra Multiplex qPCR Probe Master Mix 2x

**Fast Performance:** Accelerated qPCR cycling protocols reduce assay time significantly.

**Ultra Multiplexing Capability:** Amplification and detection of up to 7 targets in a single reaction.

**Exceptional Sensitivity and Specificity:** Multiple hot-start enzyme control for low background and reliable detection of low-abundance targets.

**High Inhibitor Tolerance:** Robust performance in complex and inhibitor-rich samples.

**Enhanced Stability:** Consistent results with minimal variability across workflows.

**ROX-Free Formulation:** Designed for use with probe-based assays without interference from passive reference dyes.



Scan to view product page



## Speedy qPCR (1-3 targets)

### NZYSpeedy qPCR Probe Master Mix (2x)

MB23001	2 x 1 mL (200 rxns of 20 µL)	132 €
MB23002	5 x 1 mL (500 rxns of 20 µL)	272 €
MB23003	20 x 1 mL (2000 rxns of 20 µL)	944 €

### NZYSpeedy qPCR Probe Master Mix (2x), ROX

MB22901	2 x 1 mL (200 rxns of 20 µL)	132 €
MB22902	5 x 1 mL (500 rxns of 20 µL)	272 €
MB22903	20 x 1 mL (2000 rxns of 20 µL)	944 €

### NZYSpeedy qPCR Probe Master Mix (2x), ROX plus

MB22801	2 x 1 mL (200 rxns of 20 µL)	132 €
MB22802	5 x 1 mL (500 rxns of 20 µL)	272 €
MB22803	20 x 1 mL (2000 rxns of 20 µL)	944 €

### qPCR Probes

High quality qPCR Probes starting from 115€.

Discover more on page 70.



# ONE-STEP RT-qPCR PROBE MASTER MIXES

NZYtech provides One-step real-time qPCR master mixes with all necessary components (except primers/probes and template) for reverse transcription and qPCR amplification in a single step. These mixes, featuring multiple hot-start enzyme control and advanced PCR enhancers, ensure high sensitivity and minimize contamination risks. Lyophilized versions offer stable, eco-friendly room-temperature options. Now, with the Ultra One-Step qPCR range, NZYtech introduces ultra-multiplexing capabilities, faster protocols, and enhanced performance for even greater reliability.

## Supreme RT-qPCR (1-3 targets)

### NZYSupreme 1-step RT-qPCR Probe MM

MB41401	2 x 1 mL (200 rxns of 20 µL)	254 €
MB41402	5 x 1 mL (500 rxns of 20 µL)	577 €
MB41403	20 x 1 mL (2000 rxns of 20 µL)	2 078 €

### NZYSupreme 1-step RT-qPCR Probe MM , ROX

MB47801	2 x 1 mL (200 rxns of 20 µL)	254 €
MB47802	5 x 1 mL (500 rxns of 20 µL)	577 €
MB47803	20 x 1 mL (2000 rxns of 20 µL)	2 078 €

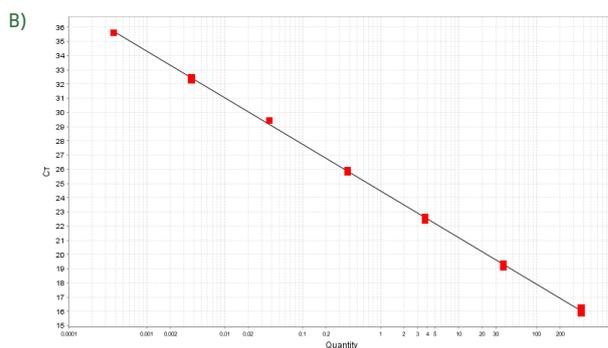
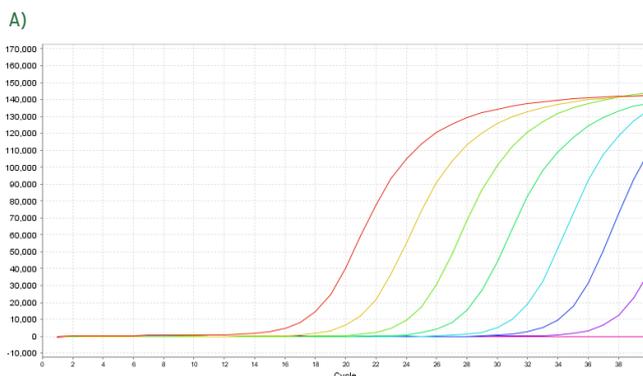
### NZYSupreme 1-step RT-qPCR Probe MM , ROX plus

MB47901	2 x 1 mL (200 rxns of 20 µL)	254 €
MB47902	5 x 1 mL (500 rxns of 20 µL)	577 €
MB47903	20 x 1 mL (2000 rxns of 20 µL)	2 078 €

### Lyo NZYSupreme 1-step RT-qPCR Probe MM

MB41501	For 3 x 0.5 ml (150 rxns of 20 µL)	254 €
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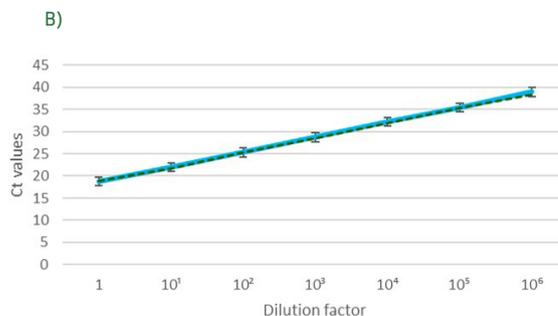
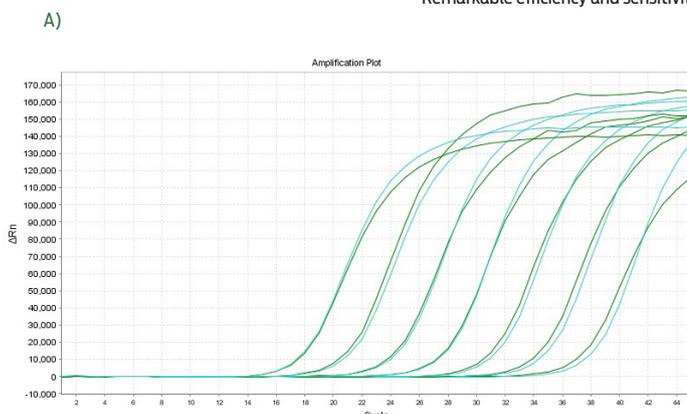
NZYSupreme One-step RT-qPCR Probe Master Mix: High-performance across a wide dynamic range of very low RNA inputs (<0.5 pg)



A 10-fold serial dilution of total RNA from mouse liver (375 ng to 0.375 pg) was used as template for a one-step real-time RT-qPCR experiment to detect the rpl27 housekeeping gene.

Panel A: evidence of the high performance and linearity when using NZYSupreme One-step RT-qPCR Probe Master Mix. Panel B: standard curve (slope: -3.28; efficiency: 101.7%).

NZYSupreme One-step RT-qPCR Probe Master Mix vs Lyo NZYSupreme One-step RT-qPCR Probe Master Mix: Remarkable efficiency and sensitivity ensured in all formats available



High sensitivity and linearity of the two formulations of NZYSupreme One-step RT-qPCR Probe Master Mix – liquid (with glycerol) and lyophilized (tested after rehydrated with the respective reconstitution buffer), across a wide range of input RNA (from 375 ng to 0.375 pg) to amplify the rpl27 mouse gene.

Panel A: Amplification curves evidencing the high reproducibility between the liquid (blue curves) and lyophilized (green curves) formats.

Panel B: Comparison of Ct variation across template dilutions.

## Supreme Multiplex RT-qPCR (1-6 targets)

### NZYSupreme Multiplex RT-qPCR Probe MM (2x)

MB44201	2 x 1 mL (200 rxns of 20 µL)	277 €
MB44202	5 x 1 mL (500 rxns of 20 µL)	612 €
MB44203	20 x 1 mL (2000 rxns of 20 µL)	2 194 €

### Lyo NZYSupreme Multiplex RT-qPCR Probe MM

MB44301	For 3 x 0.5 ml (150 rxns of 20 µL)	277 €
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Ultra-sensitive: Detect low-copy number targets (8 copies)

Multiple Hot-Start mode for Supreme versions

Include RNase Inhibitor

Efficient multiplexing for up to 6 targets

Lyo formats stable at Room Temperature

### Benchmark Analysis

Three qPCR benchmark experiments. Enhanced detection and robust amplification.

Discover how NZYtech's NZYSupreme Multiplex One-Step RT-qPCR Probe Master Mix delivers exceptional sensitivity and efficiency. Benchmarked against 4 gold-standard mixes, it sets a new bar for performance. Scan the QR and read the full benchmark.



### Selection Guide

Singleplex or Multiplex: Choose the right tool for your research needs

Whether you are performing Multiplex qPCR or require the precision of Singleplex reactions, NZYtech has the perfect master mix for you. Scan the QR Code and read the selection guide.



## Ultra Multiplex RT-qPCR (1-7 targets)

### NEW NZY Ultra Multiplex 1-Step RT-qPCR Probe MM

MB50801	2 x 1 mL (200 rxns of 20 µL)	355 €
MB50802	5 x 1 mL (500 rxns of 20 µL)	800 €
MB50803	20 x 1 mL (2000 rxns of 20 µL)	2 790 €

### NZY Ultra Multiplex One-Step RT-qPCR Probe Master Mix 2x

**Fast Performance:** cDNA synthesis at 60 °C in 1 minute and accelerated qPCR cycling protocols.

**Ultra Multiplexing Capability:** Amplification of up to 7 targets in a single reaction.

**Exceptional Sensitivity and Specificity:** Optimized multiple hot-start enzyme control for low background and high target detection.

**High Inhibitor Tolerance:** Reliable performance in complex and challenging sample types.

**Enhanced Stability:** Streamlined workflow with bench stability and minimized reaction variability.

Scan to view product page



## ONE-STEP RT-qPCR Kits

NZYtech provides One-step real-time PCR Kits designed to directly amplify RNA samples on your real-time PCR instrument. These Kits were developed to enable cDNA synthesis from input RNA followed by PCR amplification of the cDNA in the same reaction well, with no extra hands-on requirement or further reagent addition. This not only reduces the number of sample manipulations but also saves time. One-step Kits are available for Probe and Green detection. Choose the One-step real-time PCR Kit that most suits your experiment and that is most appropriate for your instrument through the analysis of the qPCR Selection Guide presented in page 7.

### One-Step NZYSpeedy RT-qPCR Green Kits

⚠ One-step RT-qPCR Green Kit (2x)		
MB34601	1 mL (100 rxns of 20 $\mu$ L)	129 €
MB34602	5 x 1 mL (500 rxns of 20 $\mu$ L)	539 €

⚠ One-step RT-qPCR Green Kit (2x), ROX		
MB34501	1 mL (100 rxns of 20 $\mu$ L)	129 €
MB34502	5 x 1 mL (500 rxns of 20 $\mu$ L)	539 €

⚠ One-step RT-qPCR Green Kit (2x), ROX plus		
MB34401	1 mL (100 rxns of 20 $\mu$ L)	129 €
MB34402	5 x 1 mL (500 rxns of 20 $\mu$ L)	539 €

### One-Step NZYSpeedy RT-qPCR Probe Kits

⚠ One-step RT-qPCR Probe Kit (2x)		
MB35201	1 mL (100 rxns of 20 $\mu$ L)	129 €
MB35202	5 x 1 mL (500 rxns of 20 $\mu$ L)	539 €

⚠ One-step RT-qPCR Probe Kit (2x), ROX		
MB35101	1 mL (100 rxns of 20 $\mu$ L)	129 €
MB35102	5 x 1 mL (500 rxns of 20 $\mu$ L)	539 €

⚠ One-step RT-qPCR Probe Kit (2x), ROX plus		
MB35001	1 mL (100 rxns of 20 $\mu$ L)	129 €
MB35002	5 x 1 mL (500 rxns of 20 $\mu$ L)	539 €

## qPCR COMPONENTS

### DEPC-treated Water

MB43701	5 x 1 mL	29 €
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### qPCR Probes

High quality qPCR Probes starting from 115€. Discover more on page 70.





## RNA & cDNA

RNA SYNTHESIS

cDNA SYNTHESIS

RNases

RNA PROTECTION

# RNA & cDNA

## RNA SYNTHESIS

NZYtech offers convenient Kits for the *in vitro* transcription of DNA into RNA using a T7 RNA polymerase that is highly specific for T7 phage promoters. The enzyme is also provided separately for your routine protocols.

▲ NZY T7 RNA Synthesis Kit		
MB35301	50 reactions	209 €

▲ NZY T7 High Yield RNA Synthesis Kit		
MB36301	50 reactions	314 €

▲ T7 RNA polymerase		
MB08001	10000 U (20 U/μL)	52 €
MB08003	10000 U (200 U/μL)	52 €

## cDNA SYNTHESIS

### Reverse transcriptases

NZYtech offers two types of reverse transcriptases: first generation enzymes, including M-MuLV RTase and NZY RTase, and a second-generation enzyme, Supreme RTase. All NZYtech Reverse Transcriptases lack 3'-5' exonuclease activity and intrinsic RNase H activity, which enhances the synthesis of full-length cDNA. These enzymes are suitable for a wide range of applications, including first-strand cDNA synthesis, RT-PCR, RT-qPCR and RNA-Seq library preparation.

NZY M-MuLV RTase 200 U/μL		
MB08301	100 μL (100 rxns of 20 μL)	84 €
MB08302	5 x 100 μL (500 rxns of 20 μL)	359 €

NZY Reverse Transcriptase 200 U/μL		
MB12401	100 μL (100 rxns of 20 μL)	109 €
MB12402	5 x 100 μL (500 rxns of 20 μL)	480 €

Lyo NZY Reverse Transcriptase		
MB40901	For 500 μL (500 rxns of 20 μL)	530 €

NEW Supreme NZY Reverse Transcriptase 1 kU/μL <small>PATENT PENDING</small>		
MB49401	20 μL (100 rxns of 20 μL)	349 €
MB49402	5 x 20 μL (500 rxns of 20 μL)	1599 €

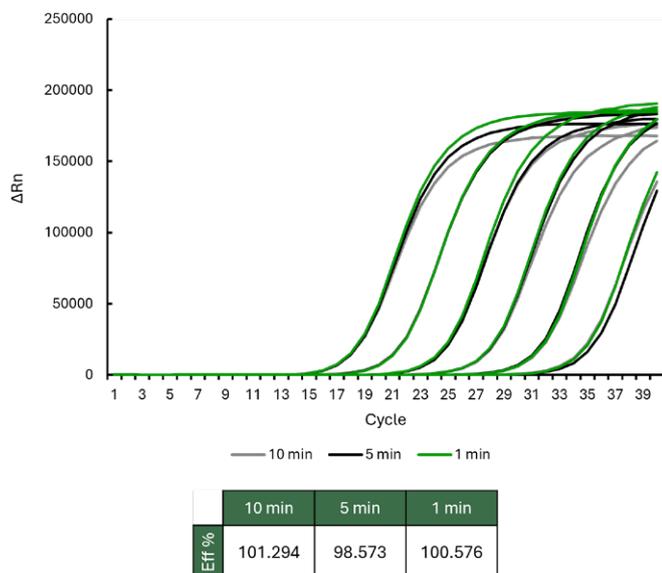
NEW Supreme NZY Reverse Transcriptase 200 U/μL <small>PATENT PENDING</small>		
MB49601	100 μL (100 rxns of 20 μL)	299 €
MB49602	5 x 100 μL (500 rxns of 20 μL)	1299 €

NEW Lyo Supreme NZY Reverse Transcriptase <small>PATENT PENDING</small>		
MB48201	For 100 μL (100 rxns of 20 μL)	349 €
MB48202	For 5 x 100 μL (500 rxns of 20 μL)	1599 €

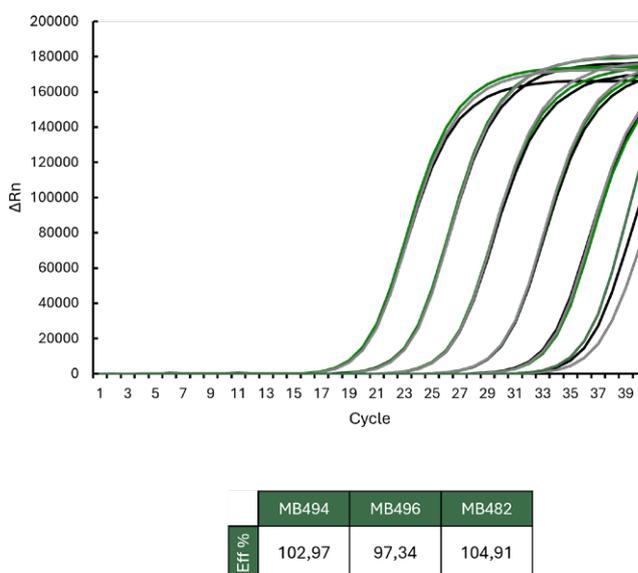
Features	NZY M-MuLV RTase	NZY RTase	Supreme NZY RTase
Optimal reaction temperature	37- 42 °C	50- 55 °C	37- 70 °C
Reaction time	50 min	10 min	1-5 min
Maximum product length	Up to 7 kb*	Up to 7 kb*	Up to 9 kb
Amplification of complex templates	Low efficiency	Medium efficiency	High efficiency

\* These enzymes yield high cDNA quantities of up to 3 kb and support reverse transcription of up to 7 kb. For long templates, enzyme amount optimization may be necessary.

## A) Supreme NZY RTase at different times



## B) Supreme NZY RTase - different presentations



Performance of Supreme NZY Reverse Transcriptase. (A) MB496 performance across different reaction times. A dilution series of mouse total RNA (from 5 µg to 50 pg) was used for cDNA synthesis at 60 °C for 1, 5 and 10 minutes. (B) Comparison of MB482 (Lyo), MB494 (1 kU/µL) and MB496 (200 U/µL) activity at 60 °C. A dilution series of mouse total RNA (from 1 µg to 10 pg) was used as a template for cDNA synthesis for 1 minute at 60 °C. Synthesized cDNA was used as a template to detect the mouse housekeeping gene Rpl27.

Related Products	NZY M-MuLV RTase	NZY RTase	Supreme NZY RTase
Flexible Pack	-	MB400	MB495
First-strand cDNA Kit with oligos	MB172	MB125	MB500
First-strand cDNA Kit separate oligos	MB173	MB170	MB505
SuperMix	-	-	MB499

## Super Mix

NZYtech offers a new solution for synthesizing high-quality cDNA in a faster, simpler and more efficient way. The Supreme NZY RT SuperMix 5x contains all the necessary components for cDNA synthesis in a single tube, reducing pipetting errors and optimizing the workflow, while maintaining the quality and reliability of the results.

### NEW Supreme NZY RT SuperMix 5x

PATENT PENDING

MB49901	200 µL (50 rxns of 20 µL)	649 €
MB49902	5 x 200 µL (250 rxns of 20 µL)	2 799 €

Features	Supreme NZY RT SuperMix 5x
Optimal reaction temperature	60 °C
Reaction time	10-15 min *
Amplification of complex templates	High efficiency
Primers	Optimized mixture of Oligo (dT) <sub>18</sub> and random hexamers

\* Includes all steps prior to cDNA synthesis, such as primer annealing.

## cDNA Kits and Packs

NZYtech delivers reliable, cost-effective, and versatile first-strand cDNA Kits and flexible packs designed to deliver high-quality cDNA synthesis. These products support a variety of downstream applications, including standard PCR, cDNA library construction, and two-step RT-PCR assays. Our Flexible Packs include all the necessary components provided individually, allowing maximum adaptability to meet your specific needs, while First-strand cDNA Kits offer an ease-of-use workflow, with each Kit containing an enzyme mix (a pre-formulated blend of reverse transcriptase and ribonuclease inhibitor) and a master mix (available with or without oligos). Explore our comprehensive range of solutions to find the ideal match for your work:

Features	NZY M-MuLV First-Strand cDNA Synthesis Kit (MB172)	NZY M-MuLV First-Strand cDNA Synthesis Kit, separate oligos (MB173)	NZY First-Strand cDNA Synthesis Kit (MB125)
Separate Oligos*	No	Yes	No
Reverse Transcriptase	NZY M-MuLV RTase	NZY M-MuLV RTase	NZY RTase
Ribonuclease Inhibitor	NZY RI	NZY RI	NZY RI
Master Mix Concentration	2x	2x	2x

\* Oligo(dT)<sub>18</sub> and random hexamers are provided in separate tubes for the Kits indicated. In all other Kits, they are included within the provided Master Mix.

 <b>NZY First-Strand cDNA Synthesis Kit</b>		
MB12501	50 reactions	206 €
MB12502	250 reactions	900 €

 <b>NZY First-Strand Synthesis Kit, separate oligos</b>		
MB17001	50 reactions	209 €
MB17002	250 reactions	923 €

 <b>NZY M-MuLV First-Strand cDNA Synthesis Kit</b>		
MB17201	50 reactions	159 €
MB17202	250 reactions	692 €

 <b>NZY M-MuLV FScDNA Synthesis Kit, separate oligos</b>		
MB17301	50 reactions	167 €
MB17302	250 reactions	713 €

 <b>NZY First-Strand cDNA Synthesis Flexible Pack</b>		
MB40001	200 reactions	236 €

Features	NZY First-Strand cDNA Synthesis Kit, separate oligos (MB170)	Supreme NZY First-Strand cDNA Synthesis Kit (MB500)	Supreme NZY First-Strand cDNA Synthesis Kit, separate oligos (MB505)
Separate Oligos*	Yes	No	Yes
Reverse Transcriptase	NZY RTase	Supreme RTase	Supreme RTase
Ribonuclease Inhibitor	NZY RI	Supreme RI	Supreme RI
Master Mix Concentration	2x	5x	5x

\* Oligo(dT)<sub>18</sub> and random hexamers are provided in separate tubes for the Kits indicated. In all other Kits, they are included within the provided Master Mix.

#### NEW Supreme NZY First-Strand cDNA Synthesis Kit PATENT PENDING

 MB50001	50 reactions	499 €
MB50002	250 reactions	2 199 €

#### NEW Supreme NZY FS cDNA Synthesis Kit, separate oligos PATENT PENDING

 MB50501	50 reactions	509 €
MB50502	250 reactions	2 219 €

#### NEW Supreme HC NZY FS cDNA Synthesis Flexible Pack PATENT PENDING

 MB49501	200 reactions	999 €
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## RNA primers

 <b>Oligo (dT)<sub>18</sub> primer mix</b>		
MB12801	27 µg (100 µL)	76 €

 <b>Random hexamer mix</b>		
MB12901	25 µg (500 µL)	63 €

**Oligo(dT)<sub>18</sub> primer:** hybridizes to the poly(A) tail found at the 3' - end of most eukaryotic mRNAs; frequently used when cDNA is used for cloning, cDNA library construction and qPCR

**Random hexamers:** priming ssDNA or RNA for extension by DNA polymerase or Reverse transcriptases; during cDNA synthesis, random hexamer will perform random priming throughout the entire length of the RNA to generate a cDNA pool containing various lengths of cDNA

## RNases

 <b>NZY RNase H (<i>E. coli</i>)</b>		
MB08501	250 U	60 €
MB08502	1250 U	240 €

<b>NZY RNase A</b>		
MB18701	100 mg	119 €

## RNA PROTECTION

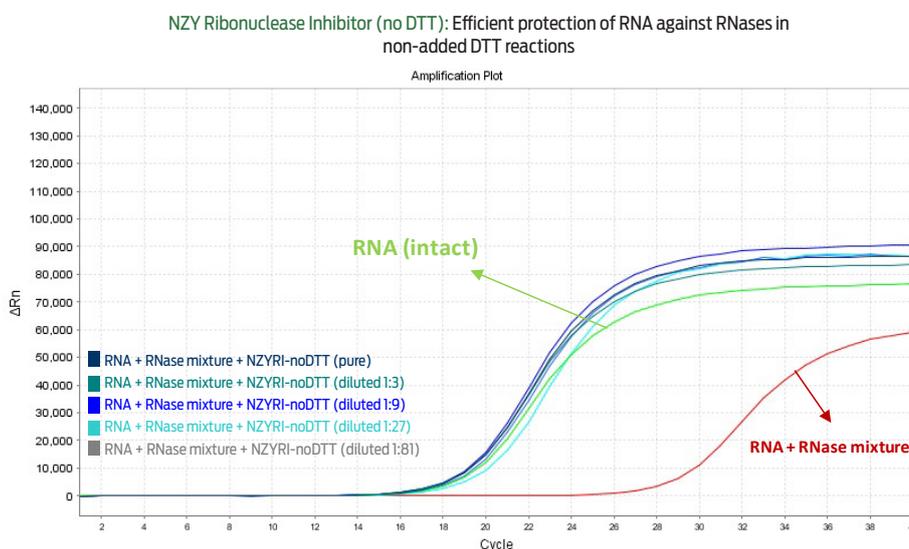
NZYtech Ribonuclease Inhibitors are active againsts RNases (E. C. 3.1) of the pancreatic type (RNase A, B and C) and are useful in applications where eukaryotic RNase contamination is a potential problem. For reactions that do not tolerate higher levels of DTT, please use the oxidation-resistant NZY Ribonuclease Inhibitor (no DTT). NZYtech offers a powerful trio of cleaners targeting DNA, RNA, Mycoplasma, and nucleases, ensuring thorough decontamination for optimal laboratory operations.

NZY Ribonuclease Inhibitor		
MB08401	2500 U	60 €
MB08402	5 x 2500 U	240 €

Lyo NZY Ribonuclease Inhibitor		
MB41102	For 500 µL (500 rxns of 20 µL)	399 €
MB41103	For 5 x 500 µL (2500 rxns of 20 µL)	1 499 €

NZY Ribonuclease Inhibitor (no DTT)		
MB41001	2500 U	60 €
MB41002	5 x 2500 U	240 €

Lyo NZY Ribonuclease Inhibitor (no DTT)		
MB41202	For 500 µL (500 rxns of 20 µL)	399 €
MB41203	For 5 x 500 µL (2500 rxns of 20 µL)	1 499 €



The ability of NZY Ribonuclease Inhibitor (no DTT) to inhibit ribonuclease (RNase) activity was tested by pre-mixing 125 ng of mouse RNA with different amounts of the inhibitor enzyme (1:3 dilution series) and a cocktail of RNases from serum origin. No DTT was added in the reactions, which were incubated at 37 °C for 1 hour. A negative control (without NZYRibonuclease Inhibitor (no DTT)) and a positive control (only RNA not exposed to the RNases mixture) were introduced. The integrity of RNA was judged through a real-time one-step RT-qPCR experiment. Complete preservation of RNA integrity is observed in the presence of NZY Ribonuclease Inhibitor (no DTT) (in all dilutions tested), as measured by the successful amplification of the desired target in the real-time RT-PCR assay (the signal overlaps to that emitted by the positive control – intact RNA).

DNA & RNA Cleaner		
MB46201	250 mL	27 €
MB46202	500 mL (Refill)	51 €

RNase & DNase Cleaner		
MB46301	250 mL	27 €
MB46302	500 mL (Refill)	51 €

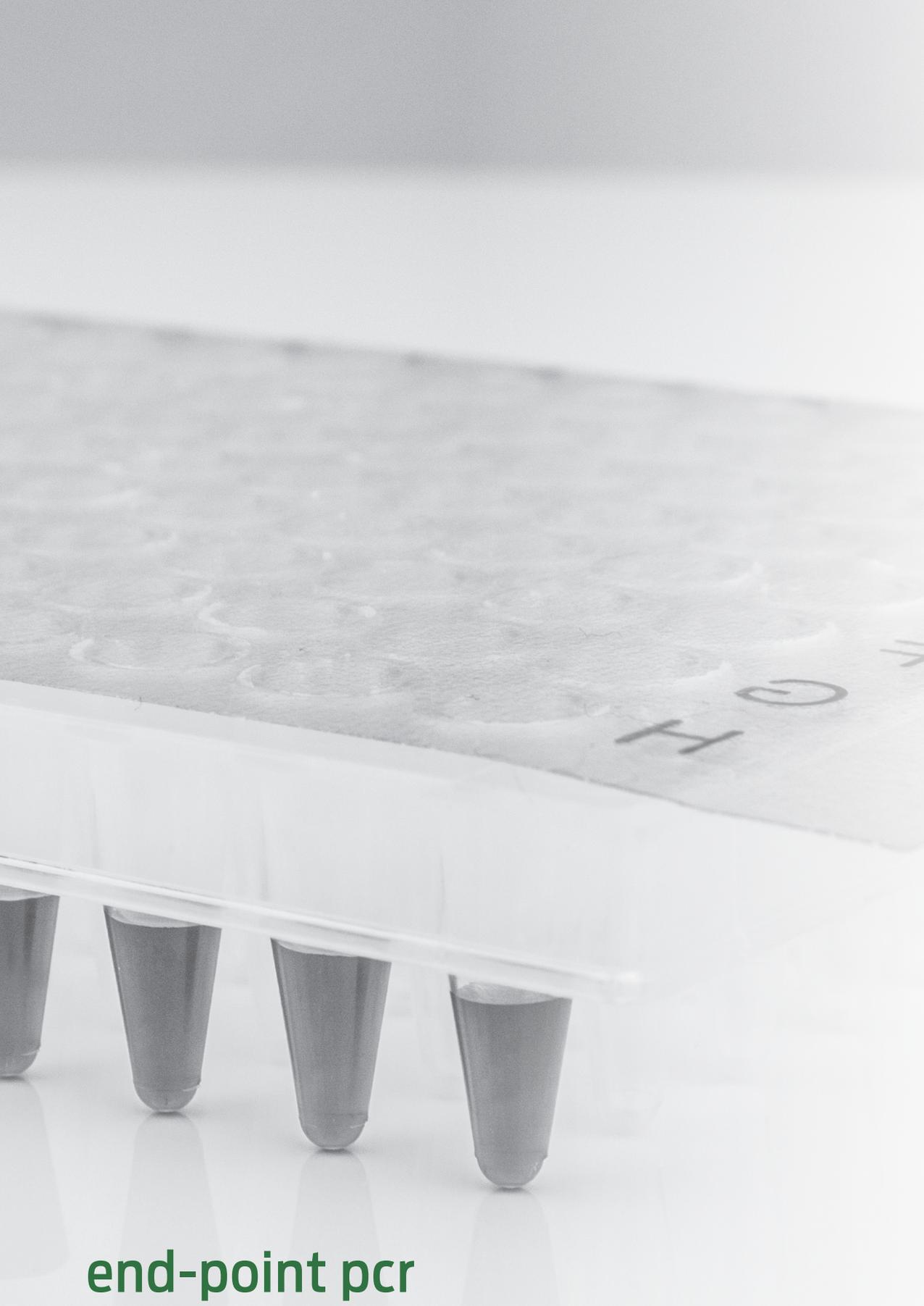
Nucleases & Nucleic Acid Cleaner		
MB48301	250 mL	36 €
MB48302	500 mL (Refill)	65 €

### Whitepaper

#### The Science of Cleaning

Learn how NZYtech Cleaners enhance precision and efficiency in molecular biology by overcoming the limits of traditional cleaning methods. Scan the QR code to read the whitepaper.





## **end-point pcr**

**DNA POLYMERASES & OTHER PCR ENZYMES**

**MASTER MIXES**

**MULTIPLEX MIXES**

**COMPONENTS/SUPPLEMENTS**

# END-POINT PCR

## DNA POLYMERASES & OTHER PCR ENZYMES

NZYtech's DNA polymerases offer great performance expressed by high yields and extreme sensitivity. Each enzyme presents different features to cover a wide range of applications. Thus, we organized enzymes by applications allowing you to direct your selection to the enzymes that most suit your experiment. The Supreme version of each enzyme displays a hot-start-like activity for improved specificity and sensitivity.

	DNA polymerase	Features	Product length	Extension (sec/kb)	Proof reading	Sensitivity*	Product overhang	Cat. No.
Power & Routine	<b>NZYTaq II</b>	High yields with minimal optimization	≤ 6 kb	15-30	No	5 pg	3'-A	MB354
	<b>Supreme NZYTaq II</b>	Hot-start-like version of NZYTaq II	≤ 6 kb	15-30	No	1 pg	3'-A	MB355
	<b>Speedy NZYTaq</b>	Powerful PCR in 30-60 min	≤ 6 kb	5-10 <sup>#</sup>	No	50 pg	3'-A	MB403
	<b>Speedy Supreme NZYTaq</b>	Hot-start-like PCR in 15-60 min	≤ 6 kb	5-10 <sup>#</sup>	No	1 pg	3'-A	MB390
Fidelity	<b>NZYProof</b>	High fidelity proofreading enzyme	≤ 10 kb	60	Yes	5 ng	Blunt	MB146
	<b>Supreme NZYProof</b>	Hot-start-like version of NZYProof	≤ 10 kb	15-30	Yes	1 ng	Blunt	MB283
	<b>Speedy NZYProof</b>	High fidelity PCR in 30-60 min	≤ 2 kb	5	Yes	10 ng	Blunt	MB404
	<b>Speedy Supreme NZYProof</b>	Fast & powerful fidelity PCR	≤ 2 kb	2	Yes	1 ng	Blunt	MB436
Long	<b>NZYLong</b>	Increased processivity for extended PCR	≤ 20 kb	60	No	5 ng	Mixed	MB003
	<b>Supreme NZYLong</b>	Hot-start-like version of NZYLong	≤ 25 kb	60	No	1 ng	Mixed	MB331

\*Measures the minimal quantity of human gDNA required to amplify a 1 kb template

<sup>#</sup> For DNA fragments lower than 2kb, use 5 sec/kb

## Powerful PCR

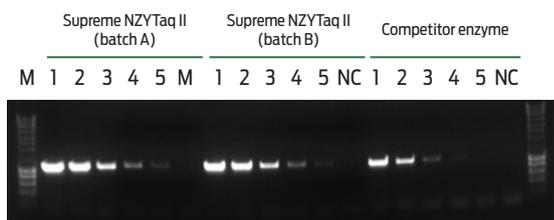
NZYTaq II DNA polymerase		
MB35401	500 U (100 µL)	37 €
MB35402	1000 U (2 x 100 µL)	69 €
MB35403	2500 U (5 x 100 µL)	157 €

NZYTaq II with 5x Gel Load Reaction Buffer		
MB36401	500 U (100 µL)	49 €
MB36402	1000 U (2 x 100 µL)	91 €
MB36403	2500 U (5 x 100 µL)	212 €

Supreme NZYTaq II DNA polymerase		
MB35501	500 U (100 µL)	87 €
MB35502	1000 U (2 x 100 µL)	161 €
MB35503	2500 U (5 x 100 µL)	377 €

Supreme NZYTaq II with 5x Gel Load Buffer		
MB36501	500 U (100 µL)	96 €
MB36502	1000 U (2 x 100 µL)	179 €
MB36503	2500 U (5 x 100 µL)	427 €

Supreme NZYTaq II DNA polymerase: High sensitivity, reproducibility and performance



Amplification of a 1-kb fragment from human genomic DNA using a 1:5 dilution series ranging from 20 ng to 32 pg. 1) 20 ng; 2) 4 ng; 3) 0.8ng; 4) 0.16 ng; 5) 0.032 ng; NC) No template control; M) NZYDNA Ladder III

### Thermal Stability Analysis

#### NZYTaq II DNA polymerase

Stable to ship at room temperature. Scan the QR code to read the full thermal stability analysis.



## Fast PCR

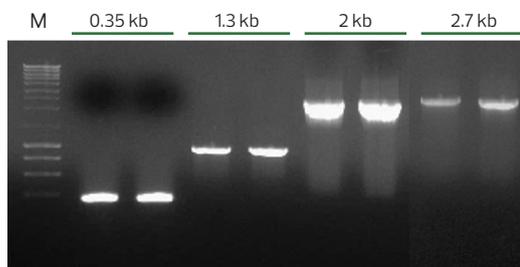
### Speedy NZYTaq DNA polymerase

MB40301	125 U (25 µL)	26 €
MB40302	500 U (100 µL)	73 €

### Speedy Supreme NZYTaq DNA polymerase

MB39001	500 U (100 µL)	168 €
MB39002	1000 U (2 x 100 µL)	317 €
MB39003	2500 U (5 x 100 µL)	746 €

Speedy NZYTaq DNA polymerase: Successful amplification of different-sized targets with limited extension time (5 sec/kb)



## High Fidelity PCR

### NZYProof DNA polymerase

MB14601	125 U (50 µL)	74 €
MB14602	500 U (200 µL)	251 €
MB14603	1000 U (2 x 200 µL)	461 €

### Supreme NZYProof DNA polymerase

MB28301	125 U (50 µL)	86 €
MB28302	500 U (200 µL)	298 €
MB28303	1000 U (2 x 200 µL)	548 €

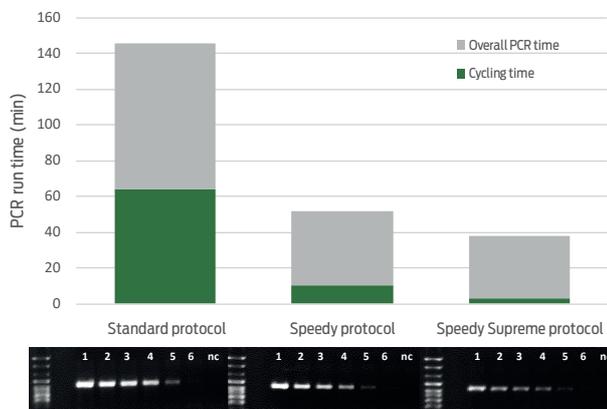
### Speedy NZYProof DNA polymerase

MB40401	125 U (50 µL)	73 €
MB40402	500 U (200 µL)	262 €

### Speedy Supreme NZYProof DNA polymerase

MB43601	125 U (50 µL)	89 €
MB43602	500 U (200 µL)	315 €

Speedy Supreme NZYProof DNA polymerase: The best choice for ultra-rapid fidelity PCRs



Amplification of a 1-kb fragment from human genomic DNA using dilution series ranging from 80 ng to 0.625 ng. The PCR was conducted with **Speedy Supreme NZYProof DNA polymerase** (2.5 U) in a 50 µL final volume in different cycling protocols (standard, speedy and speedy supreme).

The cycling times for each protocol are shown in green, while the overall PCR times on a Thermal Cycler System with a ramp rate of 4°C/sec are shown in grey. PCR products analysis through agarose gel electrophoresis (1% v/v TAE) is presented below to the chart, using NZYDNA Ladder VIII (Cat. No. MB175); numbers represent the amount of DNA template used.

1) 80 ng; 2) 40 ng; 3) 20ng; 4) 10 ng; 5) 2.5 ng; 6) 0.625 ng; NC) No template control

## Long PCR

### NZYLong DNA polymerase

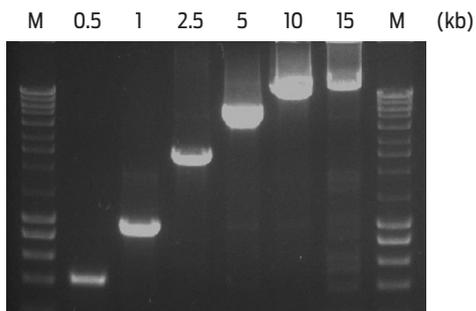
MB00301	125 U (25 µL)	50 €
MB00302	500 U (100 µL)	160 €
MB00303	1000 U (2 x 100 µL)	301 €

### Supreme NZYLong DNA polymerase

MB33101	125 U (25 µL)	61 €
MB33102	500 U (100 µL)	193 €
MB33103	1000 U (2 x 100 µL)	356 €

#### NZYLong DNA polymerase:

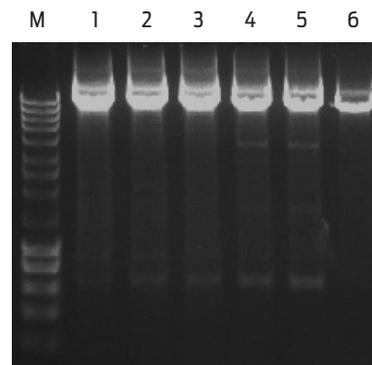
Successful amplification of DNA fragments from 0.5 to 15 kb



20-10 ng of *E. coli* gDNA were used in the different sized amplifications (the size of each amplicon is indicated in the figure).

#### Supreme NZYLong DNA polymerase:

High sensitivity with large-sized fragments using different amounts of *E. coli* gDNA



1) 40 ng; 2) 20 ng; 3) 10 ng; 4) 5 ng; 5) 2.5 ng; 6) 1.25 ng; M) NZYDNA Ladder III

## Other PCR Enzymes

### NZY Uracil-DNA Glycosylase

MB44601	500 U (100 µL)	72 €
MB44602	1500 U (3 x 100 µL)	164 €

### NZY Thermolabile Uracil-DNA Glycosylase

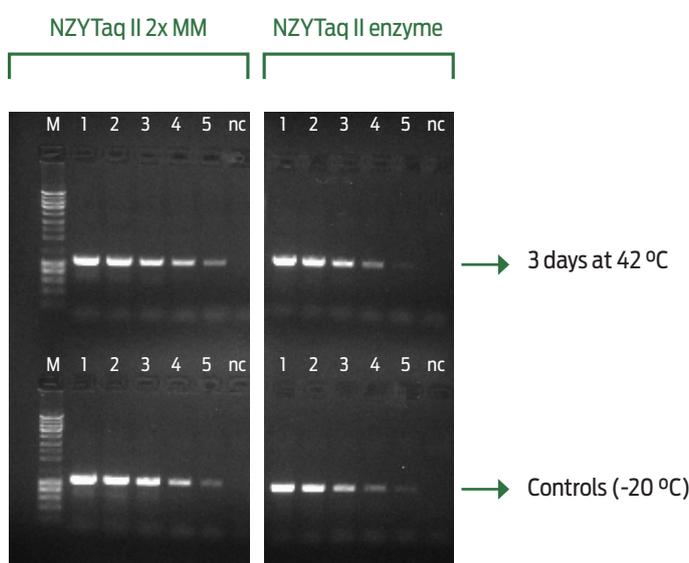
MB44501	500 U (100 µL)	72 €
MB44502	1500 U (3 x 100 µL)	164 €

## MASTER MIXES

NZYtech presents a variety of master mixes containing all PCR components (except primers and template) at optimal concentrations for efficient DNA amplification. Green Master Mixes allow amplification reactions to be directly loaded onto agarose gels. The mixes are formulated in 2x concentrated solutions.

DNA polymerase	Master Mix	Loading dye	Cat. No.
NZYTaq II DNA polymerase	NZYTaq II 2x Green Master Mix	Yes	MB358
	NZYTaq II 2x Colourless Master Mix	No	MB357
Supreme NZYTaq II DNA polymerase	Supreme NZYTaq II 2x Green Master Mix	Yes	MB360
	Supreme NZYTaq II 2x Colourless Master Mix	No	MB359
Speedy NZYTaq DNA polymerase	Speedy NZYTaq 2x Green Master Mix	Yes	MB362
	Speedy NZYTaq 2x Colourless Master Mix	No	MB361
Speedy Supreme NZYTaq DNA polymerase	Speedy Supreme NZYTaq 2x Green Master Mix	Yes	MB391
	Speedy Supreme NZYTaq 2x Colourless Master Mix	No	MB392
NZYProof DNA polymerase	NZYProof 2x Green Master Mix	Yes	MB287
	NZYProof 2x Colourless Master Mix	No	MB288
Supreme NZYProof DNA polymerase	Supreme NZYProof 2x Green Master Mix	Yes	MB285
	Supreme NZYProof 2x Colourless Master Mix	No	MB286
NZYLong DNA polymerase	NZYLong 2x Green Master Mix	Yes	MB139
	NZYLong 2x Colourless Master Mix	No	MB332
Supreme NZYLong DNA polymerase	Supreme NZYLong 2x Green Master Mix	Yes	MB333
	Supreme NZYLong 2x Colourless Master Mix	No	MB334

NZYTaq II DNA polymerase: Robust stability at high temperatures



**Activity of NZYTaq II DNA polymerase (individual enzyme and master mix formats) after 3 days at high temperature storage.** NZYTaq II DNA polymerase and NZYTaq II 2x Green Master Mix were stored during 3 days at 42 °C. Controls of the same batches were kept at -20 °C. Then, the activity was assayed in a PCR experiment to amplify a 1-kb fragment using as template a dilution series of human genomic DNA (from 20 ng to 32 pg); numbers represent the amount of DNA template used (1: 20 ng; 2: 4 ng; 3: 0.8ng; 4: 0.16 ng; 5: 0.032 ng; nc: negative control without DNA). M: NZYDNA Ladder III (Cat. No. MBO44)

## Supreme NZYTaq II-based master mixes

### Supreme NZYTaq 2x Green Master Mix

MB36001	2 x 1.25 mL (100 rxns of 50 µL)	89 €
MB36002	4 x 1.25 mL (200 rxns of 50 µL)	166 €
MB36003	20 x 1.25 mL (1000 rxns of 50 µL)	723 €

### Supreme NZYTaq 2x Colourless Master Mix

MB35901	2 x 1.25 mL (100 rxns of 50 µL)	89 €
MB35902	4 x 1.25 mL (200 rxns of 50 µL)	166 €
MB35903	20 x 1.25 mL (1000 rxns of 50 µL)	723 €

## NZYTaq II-based master mixes

### NZYTaq II 2x Green Master Mix

MB35801	2 x 1.25 mL (100 rxns of 50 µL)	49 €
MB35802	4 x 1.25 mL (200 rxns of 50 µL)	91 €
MB35803	20 x 1.25 mL (1000 rxns of 50 µL)	392 €

### NZYTaq II 2x Colourless Master Mix

MB35701	2 x 1.25 mL (100 rxns of 50 µL)	49 €
MB35702	4 x 1.25 mL (200 rxns of 50 µL)	91 €
MB35703	20 x 1.25 mL (1000 rxns of 50 µL)	392 €

## Speedy NZYTaq-based Master Mixes

### Speedy NZYTaq 2x Green Master Mix

MB36201	2 x 1.25 mL (100 rxns of 50 µL)	69 €
MB36202	4 x 1.25 mL (200 rxns of 50 µL)	130 €
MB36203	20 x 1.25 mL (1000 rxns of 50 µL)	562 €

### Speedy NZYTaq 2x Colourless Master Mix

MB36101	2 x 1.25 mL (100 rxns of 50 µL)	69 €
MB36102	4 x 1.25 mL (200 rxns of 50 µL)	130 €
MB36103	20 x 1.25 mL (1000 rxns of 50 µL)	562 €

## Speedy Supreme NZYTaq-based master mixes

### Speedy Supreme NZYTaq 2x Green Master Mix

MB39101	2 x 1.25 mL (100 rxns of 50 µL)	120 €
MB39102	4 x 1.25 mL (200 rxns of 50 µL)	225 €
MB39103	20 x 1.25 mL (1000 rxns of 50 µL)	993 €

### Speedy Supreme NZYTaq 2x Colourless Master Mix

MB39201	2 x 1.25 mL (100 rxns of 50 µL)	120 €
MB39202	4 x 1.25 mL (200 rxns of 50 µL)	225 €
MB39203	20 x 1.25 mL (1000 rxns of 50 µL)	993 €

### NEW Lyo Speedy Supreme NZYTaq Rainbow Master Mix

MB49101	All colours	199 €
MB49102	Yellow	139 €
MB39203	Red	139 €
MB49104	Pink	139 €
MB49105	Purple	139 €
MB49106	Blue	139 €
MB49107	Green	139 €
MB49108	Colourless	139 €

Choose your color:



## NZYProof-based master mixes

### NZYProof 2x Green Master Mix

MB28701	2 x 1.25 mL (100 rxns of 50 µL)	119 €
MB28702	4 x 1.25 mL (200 rxns of 50 µL)	225 €
MB28703	20 x 1.25 mL (1000 rxns of 50 µL)	982 €

### NZYProof 2x Colourless Master Mix

MB28801	2 x 1.25 mL (100 rxns of 50 µL)	119 €
MB28802	4 x 1.25 mL (200 rxns of 50 µL)	225 €
MB28803	20 x 1.25 mL (1000 rxns of 50 µL)	982 €

## Supreme NZYProof-based master mixes

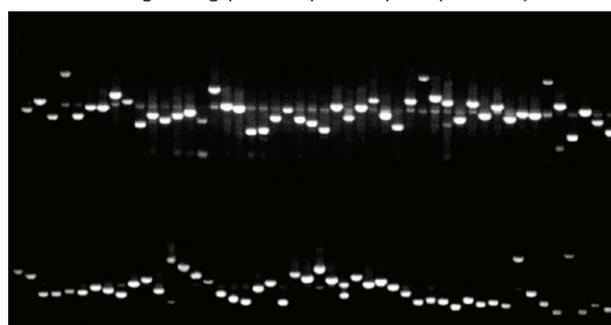
### Supreme NZYProof 2x Green Master Mix

MB28501	2 x 1.25 mL (100 rxns of 50 µL)	179 €
MB28502	4 x 1.25 mL (200 rxns of 50 µL)	340 €
MB28503	20 x 1.25 mL (1000 rxns of 50 µL)	1 484 €

### Supreme NZYProof 2x Colourless Master Mix

MB28601	2 x 1.25 mL (100 rxns of 50 µL)	179 €
MB28602	4 x 1.25 mL (200 rxns of 50 µL)	340 €
MB28603	20 x 1.25 mL (1000 rxns of 50 µL)	1 484 €

NZYLong 2x Green Master Mix:  
Convenience of direct gel loading of different-sized PCR products  
in a high-throughput PCR experiment (96 amplifications)



Green Master Mixes offer convenience in colony PCR and high-throughput applications



## NZYLong-based master mixes

### NZYLong 2x Green Master Mix

MB13902	2 x 1.25 mL (100 rxns of 50 µL)	109 €
MB13903	4 x 1.25 mL (200 rxns of 50 µL)	204 €
MB13904	20 x 1.25 mL (1000 rxns of 50 µL)	894 €

### NZYLong 2x Colourless Master Mix

MB33201	2 x 1.25 mL (100 rxns of 50 µL)	109 €
MB33202	4 x 1.25 mL (200 rxns of 50 µL)	204 €
MB33203	20 x 1.25 mL (1000 rxns of 50 µL)	894 €

## Supreme NZYLong-based master mixes

### Supreme NZYLong 2x Green Master Mix

MB33301	2 x 1.25 mL (100 rxns of 50 µL)	158 €
MB33302	4 x 1.25 mL (200 rxns of 50 µL)	298 €
MB33303	20 x 1.25 mL (1000 rxns of 50 µL)	1 304 €

### Supreme NZYLong 2x Colourless Master Mix

MB33401	2 x 1.25 mL (100 rxns of 50 µL)	158 €
MB33402	4 x 1.25 mL (200 rxns of 50 µL)	298 €
MB33403	20 x 1.25 mL (1000 rxns of 50 µL)	1 304 €

## MULTIPLEX MIXES

NZYtech developed PCR master mixes based on our non-proofreading and proofreading enzymes for the simultaneous amplification of multiple DNA fragments (up to 15 targets) in a single tube. The mixes are provided in 2x concentrated solutions, in green (direct-gel load) and colourless versions.

### Multiplex PCR NZYTaq 2x Green Master Mix

MB33501	2 x 1.25 mL (100 rxns of 50 µL)	165 €
MB33502	4 x 1.25 mL (200 rxns of 50 µL)	311 €
MB33503	20 x 1.25 mL (1000 rxns of 50 µL)	1 363 €

### Multiplex PCR NZYTaq 2x Colourless Master Mix

MB33601	2 x 1.25 mL (100 rxns of 50 µL)	165 €
MB33602	4 x 1.25 mL (200 rxns of 50 µL)	311 €
MB33603	20 x 1.25 mL (1000 rxns of 50 µL)	1 363 €

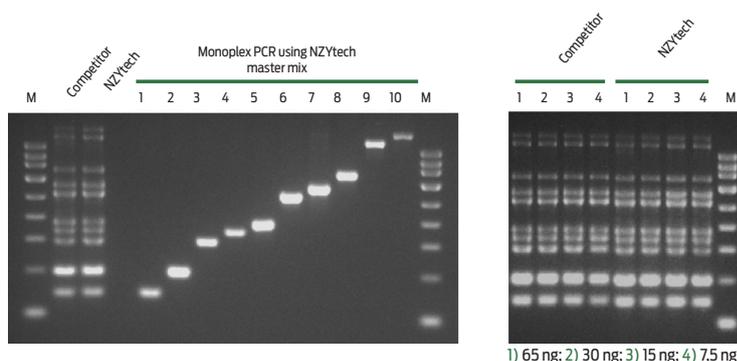
### Multiplex PCR NZYProof 2x Green Master Mix

MB33701	2 x 1.25 mL (100 rxns of 50 µL)	193 €
MB33702	4 x 1.25 mL (200 rxns of 50 µL)	365 €

### Multiplex PCR NZYProof 2x Colourless Master Mix

MB33801	2 x 1.25 mL (100 rxns of 50 µL)	193 €
MB33802	4 x 1.25 mL (200 rxns of 50 µL)	365 €

**Multiplex PCR NZYTaq 2x Green Master Mix:**  
High performance in a multiplex PCR reaction amplifying 10 different fragments from human genomic DNA



## RT-PCR MIXES

### **NEW** Supreme NZY One-Step RT-PCR Master Mix

MB50101	2 x 1.25 mL (100 rxns of 50 µL)	499 €
MB50102	20 x 1.25 mL (1000 rxns of 50 µL)	3 999 €

RT-PCR for precise end-point detection of any RNA template.

Easy to use one-tube setup.



## COMPONENTS/SUPPLEMENTS

### dNTPs NZYSet

MB08701	100 mM (4 x 0.25 mL)	60 €
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### dNTPs NZYMix

MB08601	25 mM each, 1 mL	62 €
MB08602	25 mM each, 5 mL	283 €
MB08603	10 mM each, 0.2 mL	15 €
MB08604	10 mM each, 1 mL	41 €
MB08605	10 mM each, 5 mL	157 €

## PCR Supplements

NZYtech supplements are available to optimize PCR conditions with NZYTaq II DNA polymerase.

### NZYTaq 2x GC-Enhancer Solution

MB14301	1 mL	73 €
MB14302	5 x 1 mL	288 €

## DNA & RNA purification

PLASMID DNA PURIFICATION

GENOMIC DNA PURIFICATION

RNA PURIFICATION

NUCLEIC ACIDS CLEAN-UP

NUCLEIC ACIDS QUANTIFICATION

DNA & RNA PURIFICATION REAGENTS

AUTOMATED EXTRACTION SYSTEM

# DNA & RNA PURIFICATION

## PLASMID DNA PURIFICATION

NZYtech provides Kits for the rapid preparation of highly pure plasmid DNA from recombinant *Escherichia coli* strains at different scales (Miniprep, Midiprep, Maxiprep and Gigaprep). The resulting purified plasmid DNA is suitable for use in the most demanding molecular biology applications. Buffers for plasmid purification Kits, columns and RNase A are also sold separately for your convenience. Our portfolio also includes Kits designed for manual or automated large-scale purification of DNA plasmids from *E. coli* in 96-well format (NZYMiniprep 96-well plate) or for the fast purification of multiples DNA molecules simultaneously (NZYDNA Clean-up 96-well plate).

Plasmid DNA Kits	Plasmid type	Typical yield	Scale/ Format
NZYMiniprep	high and low-copy number, BACs or cosmids	up to 45 µg	Mini/spin-column
NZYMiniprep 96-well plate	high and low-copy number	up to 15 µg	Mini/96-well plate
NZYSpeedy Miniprep	high and low-copy number, BACs or cosmids	up to 35 µg	Mini/spin-column
NZYMidiprep	high and low-copy number, BACs or cosmids	up to 150 µg	Midi/gravity flow column
NZYMaxiprep	high and low-copy number, BACs or cosmids	up to 1000 µg	Maxi/gravity flow column
NZYMaxiprep Endotoxin Free	high and low-copy number, BACs or cosmids	up to 500 µg	Maxi/gravity flow column
NZYGigaprep	high and low-copy number, BACs or cosmids	up to 10000 µg	Giga/gravity flow column

## Miniprep

NZYMiniprep		
MB01001	50 columns	79 €
MB01009	2 x 50 columns	139 €
MB01002	4 x 50 columns	209 €
MB01012	10 x 50 columns	469 €

NZYMiniprep 96-well plate		
MB20201	2 plates	590 €
MB20202	4 x 2 plates	2099 €

NZYSpeedy Miniprep		
MB21001	50 columns	82 €
MB21004	2 x 50 columns	144 €
MB21002	4 x 50 columns	215 €
MB21005	10 x 50 columns	474 €

NZY Spin Columns & Collection Tubes		
MB18901	50 units	65 €
MB18902	4 x 50 units	199 €

Buffer A1		
MB20302	15 mL	10 €

Buffer A2		
MB20402	15 mL	15 €

Buffer A3		
MB20502	20 mL	15 €

Buffer AY		
MB20602	30 mL	18 €

Buffer A4		
MB20702	8 mL	19 €

## Whitepaper

### Efficient, High-Yield Plasmid DNA Recovery.

Experience the superior performance of NZYtech's NZYMiniprep Kits, delivering high-yield, pure plasmid DNA with precision and efficiency. Scan the QR code and read the full whitepaper.



Plasmid DNA Kits	Procedure	Time	Quality grade	Application
NZYMiniprep	Manual – centrifugation	< 25 min	Molecular Biology	Cloning, sequencing, PCR, enzymatic reactions, transfection
NZYMiniprep 96-well plate	Manual or Automated – under vacuum or centrifugation	~ 45 min	Molecular Biology	Cloning, sequencing, PCR, enzymatic reactions, transfection
NZYSpeedy Miniprep	Manual – centrifugation	≤ 12 min	Molecular Biology	Cloning, sequencing, PCR, enzymatic reactions, transfection
NZYMidiprep	Manual – centrifugation	~ 70 min	Transfection	Transfection, cloning, sequencing, PCR, enzymatic reactions
NZYMaxiprep	Manual – centrifugation	~ 70 min	Transfection	Transfection, cloning, sequencing, PCR, enzymatic reactions
NZYMaxiprep Endotoxin Free	Manual – centrifugation	~ 80 min	Endotoxin free	Transfection, cloning, sequencing, PCR, enzymatic reactions
NZYGigaprep	Manual – centrifugation	~120 min	Transfection	Transfection, cloning, sequencing, PCR, enzymatic reactions

## Midiprep, Maxiprep e Gigaprep

### NZYMidiprep

MB05003	5 columns	79 €
MB05004	4 x 5 columns	199 €
MB05008	10 x 5 columns	399 €
MB05005	12 x 5 columns	459 €

### NZY Plasmid Midi Columns

MB19001	5 units	39 €
MB19002	4 x 5 units	119 €

### NZYMaxiprep

MB05106	2 columns	69 €
MB05107	5 x 2 columns	309 €

### NZY Plasmid Maxi Columns

MB20101	5 units	99 €
MB20102	4 x 5 units	349 €

### NZYMaxiprep Endotoxin Free

MB39901	5 columns	189 €
MB39902	2 x 5 columns	319 €

### NEW NZY Buffers M for Midi, Maxi and Gigaprep Kits

MB47701	120 mL each	119 €
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### NEW NZYGigaprep

MB47601	1 column	129 €
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## GENOMIC DNA PURIFICATION

NZY gDNA Isolation Kits are spin column silica-based systems designed for the simple and rapid small-scale purification of genomic DNA from various sources. Resulting purified DNA has the highest quality and integrity and is suitable for use in most sensitive downstream applications.

Genomic DNA Kits	Sample Material	Typical yield	Scale/Format	Time	Application
Speedy NZY Direct Genotyping Kit	Animal Tissue, Blood	NA	High-Throughput	5 min	Genotyping, Mouse Genotyping
NZY Tissue gDNA Isolation Kit	Animal tissue, cultured cells, bacterial cells, rodent tails, buccal swabs, paraffin embedded tissue and fecal material, whole blood*, serum, plasma, body fluids	up to 35 µg	Mini/ Spin-column	20 min <sup>2</sup>	PCR, qPCR, genotyping, sequencing, enzymatic manipulations
NZY Plant/Fungi gDNA Isolation Kit	Plant and fungal tissues	up to 30 µg	Mini/ Spin-column	30 min	PCR, qPCR, genotyping, sequencing, enzymatic manipulations
NZY Soil gDNA Isolation Kit	Soil, sludge, sediment and stool samples	2-10 µg	Mini/ Spin-column	15 min <sup>2</sup>	PCR, qPCR, genotyping, sequencing, enzymatic manipulations
NZY Microbial gDNA Isolation Kit	Cell pellets of gram-positive and gram-negative bacteria	5-25 µg <sup>1</sup>	Mini/ Spin-column	15 min	PCR, qPCR, genotyping, sequencing, enzymatic manipulations
NZY DNA/RNA/Protein Isolation Kit	Animal cells, Animal Tissue, Cultured Cells, Plant tissue	RNA < 70 µg DNA < 6 µg Protein < 1200 µg	Mini/ Spin-column	30 min	cDNA synthesis, PCR, Protein Electrophoresis, qPCR, RT-PCR, RT-qPCR, Sequencing, Western Blotting
NZY Food gDNA Isolation Kit	Food and Feed Samples	Up to 10 µg	Mini/ Spin-column	25 min	Sequencing, real-time PCR, multiplex-PCR, genotyping
NZY cfDNA Isolation Kit	Plasma, Serum	5-30 µL	Mini/ Spin-column	15 min	PCR, qPCR, Sequencing
NZY FFPE gDNA Isolation Kit	FFPE, Fixed samples, Tissue sections	up to 2 µg	Mini/Spin-column	70 min	PCR, qPCR

\* Fresh, frozen or treated; <sup>1</sup> From 30 mg wet weight cell pellet; <sup>2</sup> Excluding lysis step.

### NZY Tissue gDNA Isolation Kit

MB13502	50 columns	209 €
MB13503	200 columns	629 €

### NZY Soil gDNA Isolation Kit

MB21802	50 columns	389 €
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### NEW NZY Food gDNA Isolation Kit

MB21602	50 columns	329 €
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### NEW NZY FFPE gDNA Isolation Kit

MB49701	50 columns	250 €
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### NEW NZY Mag Blood DNA Isolation Kit

MD07981	96 preps	250 €
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### NZY Plant/Fungi gDNA Isolation Kit

MB17701	50 columns	279 €
MB17702	4 x 50 columns	859 €

### NZY Microbial gDNA Isolation Kit

MB21702	50 columns	269 €
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### NZY cfDNA Isolation Kit

MB46001	50 columns	329 €
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### NEW NZY Mag Tissue DNA Isolation Kit

MD07971	96 preps	300 €
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### NEW NZY Mag Plant DNA Isolation Kit

MD07991	96 preps	200 €
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### NZY DNA/RNA/Protein Isolation Kit

MB45901	50 columns	429 €
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### NZY Mag Viral RNA/DNA Isolation Kit BEADS

MD04963	100 preps	119 €
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### NEW NZY Mag Universal RNA/DNA Isolation Kit BEADS

MD06671	100 preps	399 €
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### NEW Lyo Speedy NZY Direct Genotyping Kit

MB48401	100 reactions	129 €
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MB48402	5 x 100 reactions	499 €
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### NEW NZY Bacterial & Viral RNA/DNA Isolation Kit

MB49001	50 columns	169 €
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### NEW NZY Mag Bacterial/Viral RNA/DNA Isolation Kit BEADS

MD06661	100 preps	299 €
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### NEW Speedy NZY Direct Genotyping Kit

MB47501	100 reactions	109 €
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MB47502	5 x 100 reactions	419 €
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### Speedy NZY Direct Genotyping Kit

Engineered to process an array of tissue materials, including blood and non-invasive hair samples, this Kit promises a seamless, animal-friendly genotyping experience.

The Speedy NZY Direct Genotyping Kit integrates a streamlined one-tube sample preparation with a swift PCR process, enabling rapid lysis of biological samples, including mouse genotyping tissues samples (tail clipping and ear punch), in under 5 minutes. The lyophilized version (MB484) offers enhanced stability and support sustainability by minimizing the need for cold storage.



## RNA PURIFICATION

NZYtech's RNA Isolation Kits are spin column silica-based systems designed for the easy and fast purification of RNA at the highest integrity from a variety of sources, such as animal tissues, cultured cells and bacteria (NZY Total RNA Isolation Kit), serum, plasma, saliva, nasal samples, blood and environmental samples. In addition to these developments, we are excited to introduce three new products: the Plant/Fungi RNA Isolation Kit for reliable RNA extraction from plant tissues and fungal materials, the NZYStool RNA Isolation Kit, ensuring efficient RNA extraction from fresh and frozen stool samples to explore the microbiome's potential, and the NZY miRNA Isolation & RNA Clean-up Kit, streamlining miRNA research with simplified RNA extraction and purification.

### NZY Total RNA Isolation Kit

MB13402	50 columns	249 €
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MB13403	4 x 50 columns	935 €
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### NZY Viral RNA Isolation Kit

MB40701	50 columns	159 €
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### NZY Plant/Fungi RNA Isolation Kit

MB45601	50 columns	349 €
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### NEW NZY Bacterial & Viral RNA/DNA Isolation Kit

MB49001	50 columns	169 €
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### NZYol

MB18502	30 mL	49 €
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MB18503	5 x 30 mL	179 €
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### Buffer NVL

MB40801	100 mL	99 €
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### Buffer NPFN

MB46101	5 mL	39 €
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### NZY Stool RNA Isolation Kit

MB45701	50 columns	439 €
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### NZY Mag Viral RNA/DNA Isolation Kit

BEADS

MD04963 100 preps 119 €

### NZY DNA/RNA/Protein Isolation Kit

MB45901 50 columns 429 €

### NEW NZY Mag Bacterial/Viral RNA/DNA Isolation Kit

BEADS

MD06661 100 preps 299 €

### NZY miRNA Isolation & RNA Clean-up Kit

MB45801 50 columns 379 €

### NEW NZY Mag Universal RNA/DNA Isolation Kit

BEADS

MD06671 100 preps 399 €

## NUCLEIC ACIDS QUANTIFICATION

### NEW NZY dsDNA Quantification Assay 1x

MB50901 100 reactions 89 €

MB50902 500 reactions 299 €

Cost-effective method for fluorometric quantification systems (e.g. Qubit™).



## DNA & RNA PURIFICATION REAGENTS

### NZY DNase I

MB19901 200 U/vial 89 €

### NZY RNase A

MB18701 100 mg 119 €

### Proteinase K

MB01901 100 mg 99 €

MB01902 500 mg 369 €

### RNA Stabilization Solution

MB46901 100 mL 139 €

MB46902 500 mL 529 €

### Protease ID39, *Lablibacter marinus*

MB47101 1 mg 220 €

MB47102 3 x 1 mg 499 €

### NEW NZY Turbonuclease

MB49201 50 kU (100 µL) 199 €

MB49202 5 x 50 kU (5 x 100 µL) 799 €

## NUCLEIC ACIDS CLEAN-UP

NZYGelpure Kit is designed for the purification of DNA (50 bp to 20 kb) from TAE/TBE agarose gels and for direct purification of enzymatic reactions. NZYGelpure purification Kit utilizes a silica-gel based membrane which selectively adsorbs up to 20 µg of DNA fragments.

### DNA Clean-Up

NZYGelpure		
MB01101	50 columns	75 €
MB01104	2 x 50 columns	139 €
MB01102	4 x 50 columns	209 €
MB01105	10 x 50 columns	469 €

NZYGelpure: includes a pH indicator, allowing to analyze the optimal pH for DNA binding



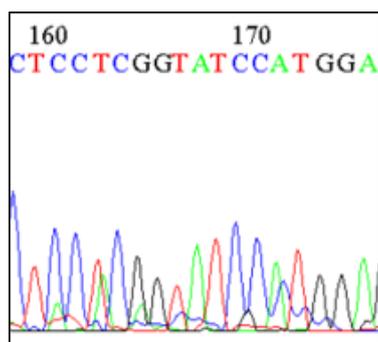
NZYDNA Clean-up 96-well plate		
MB20001	2 plates	218 €
MB20002	4 x 2 plates	800 €

NEW NZY Mag NGS Clean-up & Size Selection		
MD08001	5 mL	99 €

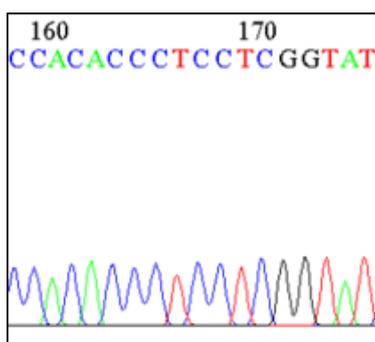
Speedy NZY ExoSAP Mix		
MB47401	50 reactions	45 €
MB47402	500 reactions	259 €

NEW Speedy NZY Blue ExoSAP Mix		
MB48901	50 reactions	59 €
MB48902	500 reactions	309 €

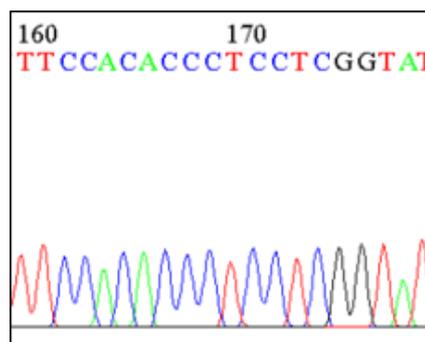
The Speedy NZY Blue ExoSAP Mix enables visual tracking of enzyme addition



Control (no treated)



Speedy NZY ExoSAP



Speedy NZY Blue ExoSAP

	Sequenced bp's	Efficacy %
Control	901	10.8
NZY ExoSAP	408	94.6
NZY Blue ExoSAP	410	92.9

Sequence efficacy, based on Phred scores of 443 base pair fragment treated with Speedy NZY ExoSAP Mix and with Speedy Blue NZY ExoSAP Mix, compared with Control (not treated).

# AUTOMATED EXTRACTION SYSTEM

Automated Extraction Systems offer the benefit of streamlined, consistent, and high-throughput nucleic acid extraction, significantly reducing hands-on time and minimizing errors in the laboratory. The Maelstrom Switch 8 model, available for ordering, exemplifies this efficiency, utilizing advanced magnetic beads and spin-tip technology to achieve precise purification, and concentration of nucleic acids. Fully validated for use with our NZY Mag Kits, this system provides a reliable, walk-away solution that boosts productivity and consistency across workflows. Our NZY Mag Kits, compatible with the Maelstrom Switch 8, are available for ordering to support a wide range of applications, including qPCR, RT-qPCR and other molecular assays.



## Maximize efficiency and space with Automated Extraction

Maelstrom Switch 8 is an automated nucleic acid extraction, introduced TANBead spin-mixing patented technology prevents the risk of sample cross-contamination. Maelstrom Switch 8 creates value to customers, diversity and convenient, designed for changeable gearboxes, processing different volume of samples for flexible needs.

**NEW Maelstrom Switch 8 (reagent rental program)**

Starting from 3 € per test

Interested in having this system in your lab?

Scan the code and fill the form to speak with a product specialist



<b>Compact Design</b>	524(W)x265(D)x412(H)mm
<b>Sample Throughput</b>	Max 16 samples/run
<b>Ease of Use &amp; Automation</b>	Intuitive touchscreen interface with pre-loaded protocols

<b>NEW NZY Mag Plant DNA Isolation Kit</b>	<b>BEADS</b>
MD07991	96 preps 200 €

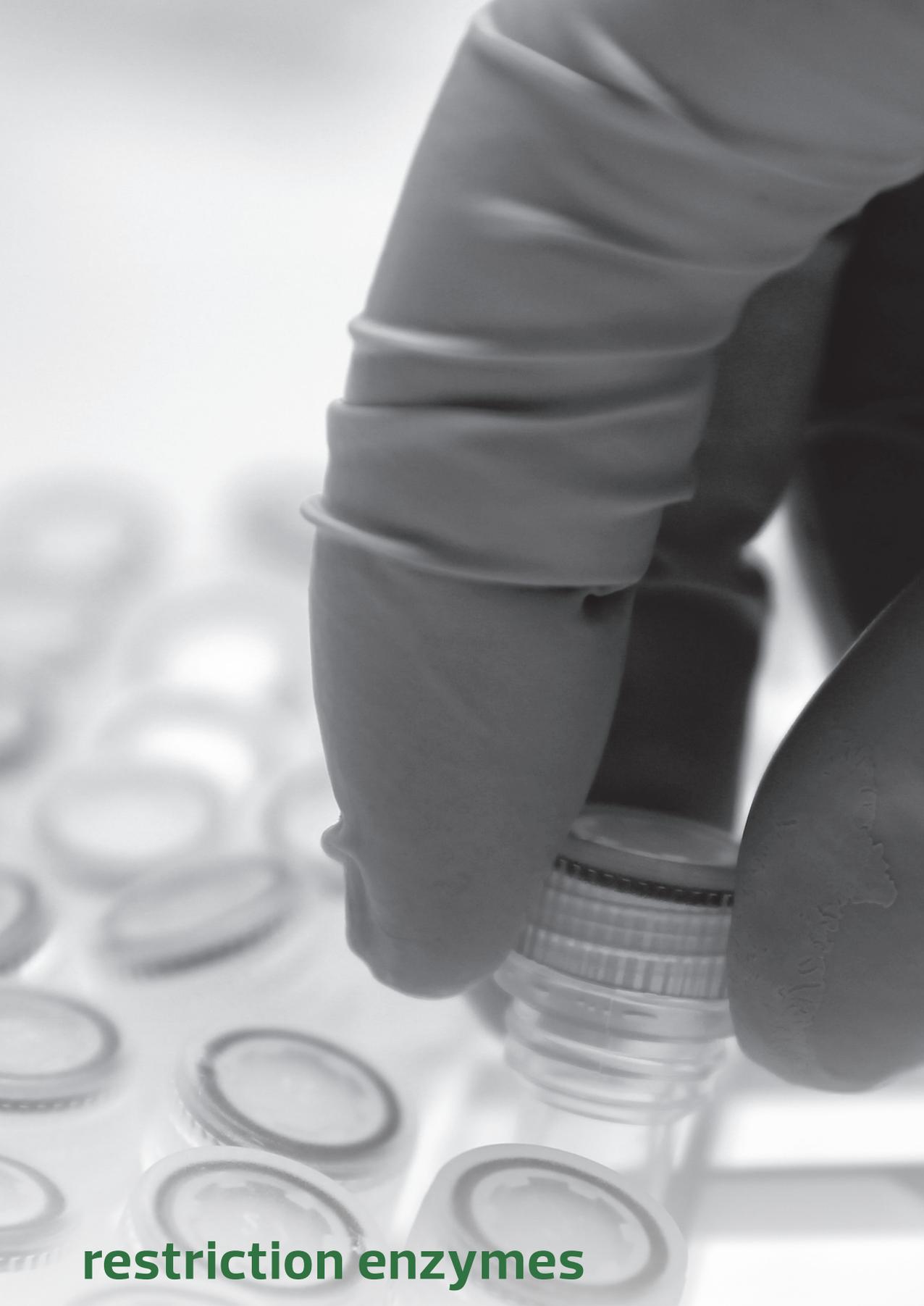
<b>NZY Mag Viral RNA/DNA Isolation Kit</b>	<b>BEADS</b>
MD04963	100 preps 119 €

<b>NEW NZY Mag Blood DNA Isolation Kit</b>	<b>BEADS</b>
MD07981	96 preps 250 €

<b>NEW NZY Mag Bacterial/Viral RNA/DNA Isolation Kit</b>	<b>BEADS</b>
MD06661	100 preps 299 €

<b>NEW NZY Mag Tissue DNA Isolation Kit</b>	<b>BEADS</b>
MD07971	96 preps 300 €

<b>NEW NZY Mag Universal RNA/DNA Isolation Kit</b>	<b>BEADS</b>
MD06671	100 preps 399 €



## restriction enzymes

CONVENTIONAL  
SPEEDY

# RESTRICTION ENZYMES

NZYtech offers a vast portfolio of restriction enzymes used in recombinant DNA technology. We present two different types of enzymes: Conventional and Fast Digestion (Speedy). Each conventional restriction enzyme is provided with a specific reaction buffer in which the enzyme is 100% active. For double digestions, we recommend to use the 10x NZYBuffer U (sold separately). Speedy restriction enzymes are a new generation of DNA modifying enzymes that were developed for rapid DNA digestion (digestion periods range from 5-15 min) and are 100% active in the 10x NZYSpeedy Buffers Colourless or Orange.

## CONVENTIONAL

<b>AscI</b> GG↓CGCGCC	MB23101	500 U	66 €	<b>HpaI</b> GTT↓AAC	MB07101	500 U	53 €
	MB23102	2500 U	276 €		MB07102	2500 U	197 €
<b>BglII</b> A↓GATCT	MB06501	1000 U	41 €	<b>MboI</b> ↓GATC	MB24101	1000 U	53 €
	MB06502	5000 U	145 €		MB24102	5000 U	197 €
<b>DdeI</b> C↓TNAG	MB23601	500 U	80 €	<b>MluI</b> A↓CGCGT	MB24301	1000 U	53 €
	MB23602	2500 U	316 €		MB24302	5000 U	197 €
<b>DpnI</b> G(mA)↓TC	MB07801	100 U	28 €	<b>NcoI</b> C↓CATGG	MB06601	500 U	41 €
	MB07802	1000 U	94 €		MB06602	2500 U	145 €
<b>DpnII</b> ↓GATC	MB23301	1000 U	53 €	<b>PstI</b> CTGCA↓G	MB07301	4000 U	41 €
	MB23302	5000 U	197 €		MB07302	20000 U	145 €
<b>EcoRI</b> G↓AATTC	MB06701	5000 U	28 €	<b>SalI</b> G↓TCGAC	MB07701	2000 U	53 €
	MB06702	25000 U	94 €		MB07702	10000 U	197 €
<b>HindIII</b> A↓AGCTT	MB07001	5000 U	41 €	<b>TaqI</b> T↓CGA	MB23501	1000 U	28 €
	MB07002	25000 U	145 €		MB23502	5000 U	94 €
<b>HinfI</b> G↓ANTC	MB23901	500 U	28 €	<b>XhoI</b> C↓TCGAG	MB07401	2000 U	53 €
	MB23902	2500 U	94 €		MB07402	10000 U	197 €

## SPEEDY

<b>Speedy AscI</b> GG↓CGCGCC	MB23201	50 reactions	94 €
	MB23202	250 reactions	395 €
<b>Speedy BglII</b> A↓GATCT	MB09301	100 reactions	53 €
	MB09302	500 reactions	197 €
<b>Speedy DpnII</b> ↓GATC	MB23401	100 reactions	94 €
	MB23402	500 reactions	395 €
<b>Speedy EcoRI</b> G↓AATTC	MB09501	500 reactions	28 €
	MB09502	2500 reactions	94 €
<b>Speedy HindIII</b> A↓AGCTT	MB09701	500 reactions	53 €
	MB09702	2500 reactions	197 €
<b>Speedy HinfI</b> G↓ANTC	MB24001	50 reactions	24 €
	MB24002	250 reactions	81 €
<b>Speedy HpaI</b> GTT↓AAC	MB09801	50 reactions	53 €
	MB09802	250 reactions	197 €

<b>Speedy MboI</b> ↓GATC	MB24201	100 reactions	53 €
	MB24202	500 reactions	197 €
<b>Speedy MluI</b> A↓CGCGT	MB24401	100 reactions	80 €
	MB24402	500 reactions	316 €
<b>Speedy NcoI</b> C↓CATGG	MB10001	50 reactions	53 €
	MB10002	250 reactions	197 €
<b>Speedy PstI</b> CTGCA↓G	MB10301	400 reactions	41 €
	MB10302	2000 reactions	145 €
<b>Speedy Sall</b> G↓TCGAC	MB10401	200 reactions	80 €
	MB10402	1000 reactions	316 €
<b>Speedy XhoI</b> C↓TCGAG	MB10701	200 reactions	53 €
	MB10702	1000 reactions	197 €

## Buffers

### 10x NZYBuffer U

MB11001	500 µL	28 €
MB11002	1000 µL	41 €

## DNA & RNA modifying enzymes

LIGASES

POLYMERASES

NUCLEASES

ISOTHERMAL AMPLIFICATION

OTHER MODIFYING ENZYMES

# DNA & RNA MODIFYING ENZYMES

NZYtech offers a variety of enzymes optimized for the development of different molecular biology protocols, including nucleases, polymerases, ligases, DNA binding enzymes and others.

## LIGASES

### T4 DNA Ligase

MB00703	500 U	54 €
MB00704	2500 U	215 €

### Glycerol-free T4 DNA Ligase 50 U/µL

MB47201	5000 U	219 €
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### Lyo T4 DNA Ligase 50 U/µL

MB47301	5000 U	263 €
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### DNA Ligase (*E. coli*)

MB42401	200 U	72 €
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### Taq DNA Ligase

MB42601	2000 U	84 €
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### Lyo NZY DNA Ligase Master Mix (2x)

MB48601	For 525 µl (50 rxns of 20 µl)	159 €
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### T4 dsRNA Ligase

MB42801	150 U	84 €
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### Speedy Ligase

MB13001	50 ligations	90 €
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### T7 DNA Ligase

MB42501	100000 U	72 €
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### T4 ssRNA Ligase

MB42701	1000 U	72 €
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### NZY DNA Ligase Master Mix (2x)

MB48501	500 µl (50 rxns of 20 µl)	129 €
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## ISOTHERMAL AMPLIFICATION

### phi29 DNA Polymerase

MB42301	250 U	54 €
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### Klenow Fragment, (exo -)

MB42101	200 U	72 €
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### NZY LAMP Positive Control Kit

 MB48001	50 reactions	99 €
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### NZY Bst DNA Polymerase

MB44401	200 µL	65 €
MB44402	3 x 200 µL	164 €

### NZY LAMP Fluorescent dye 50x

MB45401	250 µL	59 €
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### NZY RT-LAMP Positive Control Kit

 MB48101	50 reactions	99 €
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### Benchmark

Perfected sensitivity for LAMP applications. NZY Bst DNA polymerase vs Competitors

Discover NZY Bst DNA Polymerase, optimized for LAMP, WGA, MDA, and more, offering exceptional strand displacement activity. Scan the QR code and read the benchmark.



## POLYMERASES

DNA Polymerase I ( <i>E. coli</i> )		
MB42001	500 U	73 €

Klenow Fragment of DNA Polymerase I		
MB00901	300 U	90 €

T4 DNA Polymerase		
MB42201	150 U	72 €

## NUCLEASES

Endonuclease V ( <i>E. coli</i> )		
MB21301	250 U	114 €

T7 Endonuclease I		
MB21201	250 U	102 €

UltraPrecise T7 Endonuclease I		
MB34001	50 reactions	161 €
MB34002	200 reactions	580 €

Nt.BbvCI, Nicking Endonuclease		
MB09401	1000 U	75 €
MB09402	5000 U	322 €

NZY DNase I		
MB19901	200 U/vial	89 €

Exonuclease I ( <i>E. coli</i> )		
MB42901	3000 U	72 €

Exonuclease III ( <i>E. coli</i> )		
MB43001	5000 U	72 €

Endonuclease IV (Tth)		
MB43101	500 U	84 €

Exonuclease VII ( <i>E. coli</i> )		
MB43201	200 U	84 €

T5 Exonuclease		
MB43301	1000 U	72 €

NEW NZY Turbonuclease		
MB49201	50 kU (100 µL)	199 €
MB49202	5 x 50 kU (5 x 100 µL)	799 €

## OTHER MODIFYING ENZYMES

MutS ( <i>E. coli</i> )		
MB21101	50 µg	114 €
MB21102	250 µg	478 €

Topoisomerase I ( <i>E. coli</i> )		
MB43501	100 U	72 €

dam Methyltransferase		
MB43401	500 U	84 €

Alkaline Phosphatase ( <i>E. coli</i> )		
MB01801	200 U	114 €

T4 Polynucleotide Kinase (T4 PNK)		
MB00801	500 U	90 €

NZY Thermolabile Uracil-DNA Glycosylase		
MB44501	500 U (100 µL)	72 €
MB44502	1500 U (3 x 100 µL)	164 €

NZY Uracil-DNA Glycosylase		
MB44601	500 U (100 µL)	72 €
MB44602	1500 U (3 x 100 µL)	164 €



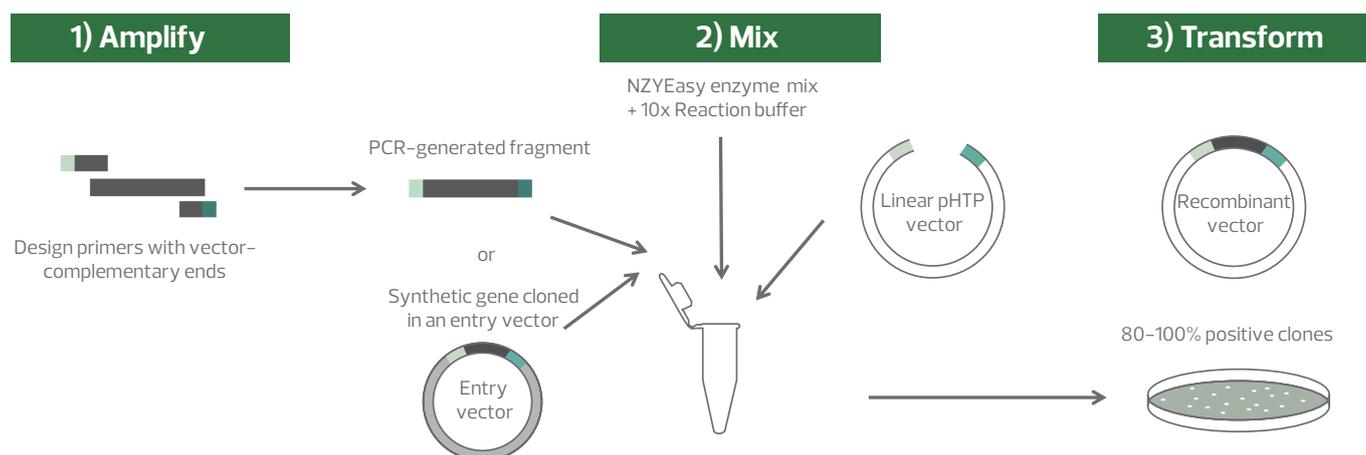
# **DNA cloning and mutagenesis Kits**

- EASY CLONING & EXPRESSION**
- STANDARD CLONING**
- DNA MUTAGENESIS**

# DNA CLONING AND MUTAGENESIS KITS

## EASY CLONING & EXPRESSION

The NZYEasy Cloning & Expression System was designed to allow directional cloning of PCR-generated fragments or synthetic genes previously cloned in pUC-vectors into a linearized pHTP vector in a single reaction mediated by NZYEasy enzyme mix. The system allows achieving high cloning efficiencies and does not require the use of DNA ligases. In addition, no further treatment (e.g. restriction digestion, phosphorylation or blunt-end polishing) of the inserts is required.



NZYtech provides ready-to-use pHTP vectors in separate Kits. The portfolio of pHTP prokaryotic expression vectors, which includes a different range of fusion tags, offers the possibility to quickly assay levels of expression and solubility of the desired protein in multiple expression vectors simultaneously. Choose the pHTP vectors that most suits your experiments on the table below:

Vector	Features	Comments	Kit Cat. No.
<b>pHTP0</b>	<i>lac</i> promoter and <i>lacZ_a</i> reporter	High-copy number cloning vector for the NZYEasy Cloning & Expression System; allows blue/white screening during cloning (if adding IPTG and X-GAL)	MB281
<b>pHTP1</b>	N- and/or C-terminal 6xHis	Standard vector for high-level protein expression in <i>E. coli</i>	Kit I, MB282
<b>pHTP2</b>	N- and/or C-terminal 6xHis; N-terminal LLDsbC	Leader Less DsbC promotes cytoplasmic isomerization of disulfide bonds	Kit II, MB319
<b>pHTP3</b>	N- and/or C-terminal 6xHis; N-terminal mutDsbC	Inactive DsbC promotes cytoplasmic solubilization without isomerization of disulfide bonds	Kit III, MB320
<b>pHTP4</b>	N- and/or C-terminal 6xHis; N-terminal DsbC	DsbC promotes periplasmic isomerization of disulfide bonds	Kit IV, MB321
<b>pHTP7</b>	N- and/or C-terminal 6xHis; N-terminal DsbA	DsbA promotes periplasmic formation of disulfide bonds	Kit VII, MB322
<b>pHTP8</b>	N- and/or C-terminal 6xHis; N-terminal Trx	Trx enhances solubility of tagged proteins	Kit VIII, MB323
<b>pHTP9</b>	N- and/or C-terminal 6xHis; N-terminal GFP	GFP is a reporter molecule that allows monitoring protein localization	Kit IX, MB324
<b>pHTP10</b>	N- and/or C-terminal 6xHis; N-terminal NusA	NusA enhances solubility of tagged proteins	Kit X, MB325
<b>pHTP11</b>	N- and/or C-terminal 6xHis; N-terminal GST	GST enables glutathione-based affinity purification of tagged proteins while enhancing protein solubility	Kit XI, MB326
<b>pHTP13</b>	N- and/or C-terminal 6xHis; N-terminal GB1	GB1 enhances solubility of tagged proteins	Kit XIII, MB327
<b>pHTP14</b>	N- and/or C-terminal 6xHis; N-terminal KSI	KSI enhances solubility of tagged proteins	Kit XIV, MB328
<b>pHTP16</b>	N- and/or C-terminal 6xHis; N-terminal CpA	CpA enhances solubility of tagged proteins	Kit XVI, MB329
<b>pHTP17</b>	N- and/or C-terminal 6xHis; N-terminal CpB	CpB enhances solubility of tagged proteins	Kit XVII, MB330

PCR-generated fragments can be cloned into the pHTP0 cloning vector (included in the NZYEasy Cloning Kit) or, alternatively, into one of the various kanamycin-resistant pHTP expression vectors (included in the different NZYEasy Cloning & Expression Kits) without the need to go through the tedious and laborious intermediate stages.

## DNA Cloning

The NZYEasy Cloning Kit was designed for time-saving and cost-effective DNA cloning. It includes the pHTP0 vector (pUC-derivative) that allows blue/white screening for positive bacterial colonies (if adding IPTG and X-GAL).

### NZYEasy Cloning Kit

MB28101	8 reactions	32 €
MB28103	96 reactions	219 €

## DNA Cloning & Expression

NZYEasy Cloning & Expression Kits include different expression vectors that use the T7/*lac* promoter for regulated high-level protein expression in *E. coli* strains containing the  $\lambda$ DE3 lysogen, such as BL21(DE3).

### NZYEasy Cloning & Expression Kit I

MB28201	8 reactions	32 €
MB28203	96 reactions	219 €

### NZYEasy Cloning & Expression Kit II

MB31901	8 reactions	32 €
MB31903	96 reactions	219 €

### NZYEasy Cloning & Expression Kit III

MB32001	8 reactions	32 €
MB32003	96 reactions	219 €

### NZYEasy Cloning & Expression Kit IV

MB32101	8 reactions	32 €
MB32103	96 reactions	219 €

### NZYEasy Cloning & Expression Kit VII

MB32201	8 reactions	32 €
MB32203	96 reactions	219 €

### NZYEasy Cloning & Expression Kit VIII

MB32301	8 reactions	32 €
MB32303	96 reactions	219 €

### NZYEasy Cloning & Expression Kit IX

MB32401	8 reactions	32 €
MB32403	96 reactions	219 €

### NZYEasy Cloning & Expression Kit X

MB32501	8 reactions	32 €
MB32503	96 reactions	219 €

### NZYEasy Cloning & Expression Kit XI

MB32601	8 reactions	32 €
MB32603	96 reactions	219 €

### NZYEasy Cloning & Expression Kit XIII

MB32701	8 reactions	32 €
MB32703	96 reactions	219 €

### NZYEasy Cloning & Expression Kit XIV

MB32801	8 reactions	32 €
MB32803	96 reactions	219 €

### NZYEasy Cloning & Expression Kit XVI

MB32901	8 reactions	32 €
MB32903	96 reactions	219 €

### NZYEasy Cloning & Expression Kit XVII

MB33001	8 reactions	32 €
MB33003	96 reactions	219 €

## STANDARD CLONING

NZYtech's DNA cloning Kits are optimized to provide high-efficiency cloning based on easy protocols with no requirement for time-consuming restriction digests. To clone PCR-amplified fragments take into account the type of DNA polymerase that was used to generate the DNA fragment and choose the appropriate cloning Kit: NZY-A PCR cloning Kits are designed for cloning of DNA fragments amplified using non-proofreading polymerases, while NZY-blunt PCR cloning Kit is designed to clone blunt-end PCR products amplified by proofreading enzymes. For a faster DNA cloning, the speedy version of NZY-A PCR cloning Kit (NZY-A Speedy PCR cloning Kit) should be chosen.

### Blunt-end

NZY-blunt PCR cloning Kit was designed to allow the direct cloning of PCR products with blunt-ends which result from amplifications using proofreading DNA polymerases such as NZYProof DNA polymerase (MB146).

#### NZY-blunt PCR cloning Kit

MB12101	24 ligations + competent cells	241 €
MB12102	24 ligations	153 €

### A-overhang

NZY-A PCR cloning Kits were designed to clone PCR products produced by non-proofreading DNA polymerases such as NZYTaq II DNA polymerase (MB354). They take advantage of the terminal transferase activity of these polymerases which adds a single 3'-A overhang to each end of the PCR product. For a faster DNA cloning, NZYtech provides the NZY-A Speedy PCR cloning Kit which allows direct cloning of PCR products with 3'-A overhangs in only 5 minutes at room temperature. Blunt-ended PCR fragments generated by amplification with proofreading polymerases can also be cloned using NZY-A PCR cloning Kits after conducting an A-tailing procedure.

#### NZY-A PCR cloning Kit

MB05301	24 ligations + competent cells	230 €
MB05302	24 ligations	138 €

#### NZY-A Speedy PCR cloning Kit

MB13701	24 ligations + competent cells	252 €
MB13702	24 ligations	186 €

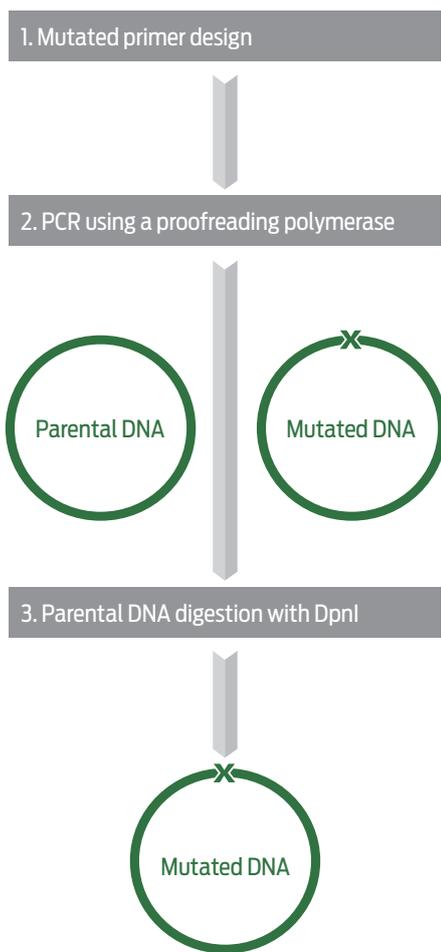
High efficiency cloning: >95% positive clones  
Blue/white colony screening  
5 minutes cloning with NZY-A Speedy PCR cloning Kit



# DNA MUTAGENESIS

Site-Directed Mutagenesis can help you in a range of applications allowing to edit the desired DNA sequence by incorporation of single or multiple point mutations in any type of plasmid DNA. NZYtech's Mutagenesis Kits provide simple and highly efficient methods to generate point mutations and delete or insert single (or multiple) nucleotides in plasmid DNA using PCR. NZYSupreme Mutagenesis Kit was recently developed to reduce labor time and increase the efficiency of DNA editing.

Mutagenesis Kits contain a proofreading DNA polymerase for PCR amplification of dsDNA plasmid to be mutated. NZYSupreme Mutagenesis Kit includes Supreme NZYProof DNA polymerase, an engineered highly accurate, fast and sensitive variant of NZYProof DNA polymerase (the DNA polymerase present in NZYMutagenesis Kit), formulated in a 2x concentrated master mix solution. Both Supreme NZYProof and NZYProof DNA polymerases ensure high fidelity for the exponential PCR amplification, thus reducing the unwanted secondary mutations and enabling amplification of large plasmids up to 15 kb. In addition, mutagenesis system requires the provision of two synthetic oligonucleotide primers containing the desired mutation. Mutated primers can be designed following standard guidelines (overlapping primers) or using an improved methodology (non-overlapping primers) recommended on NZYSupreme Mutagenesis Kit. The mutagenesis protocol includes only three main steps:



## 1. Mutated primer design

Primers should have between 25 and 45 bases in length, with a melting temperature ( $T_m$ ) of  $\geq 78$  °C; a GC content of 40% and should terminate in one or more C or G bases;

## 2. PCR amplification

Extension of the oligonucleotide primers with a proofreading DNA polymerase generates a mutated plasmid containing staggered nicks;

## 3. Digestion with DpnI

Digestion of PCR product with DpnI endonuclease for elimination of the parental methylated and hemimethylated DNA template and selection of the mutation-containing synthetic DNA (not methylated).

NZYtech provides convenient versions of the Kit, which include highly efficient competent cells for mutated plasmid recovering.

	NZYMutagenesis Kit	NZYSupreme Mutagenesis Kit
Primer design:	Standard (overlapping primers)	Improved (non-overlapping primers)
DNA polymerase:	NZYProof DNA polymerase	Supreme NZYProof 2x Colourless Master Mix
PCR time:	2h 30	<1h 30 min
Digestion time:	1 hour (at 37 °C)	5-15 min (at 37 °C)

NZYMutagenesis Kit			NZYSupreme Mutagenesis Kit		
MB01201	10 mutations	126 €	MB44701	10 mutations	157 €
MB01202	10 mutations + competent cells	176 €	MB44702	10 mutations + competent cells	205 €



**competent cells & media**

COMPETENT CELLS

CELL PREPARATION & GROWTH

# COMPETENT CELLS & MEDIA

## COMPETENT CELLS

Efficient DNA transformation of *Escherichia coli* competent cells is essential for successful cloning and protein expression applications. NZYtech offers competent *E. coli* host strains for high-efficiency transformation.

▲ NZY5α		
MB00401	20 transformations	99 €
MB00402	40 transformations	159 €

▲ NZYStar		
MB00501	20 transformations	109 €
MB00502	40 transformations	185 €

### NZY5α

10<sup>9</sup> cfu/μg of pUC19

Blue/White colony screening

Routine cloning

Genotype: *fhuA2fj(argF-lacZ)U169 phoA glnV44Ψ80 fj(lacZ)M15 gyrA96recA1 relA1 endA1 thi-lhsdR17*



### NZYStar

10<sup>9</sup> cfu/μg of pUC19

Blue/White colony screening

High quality plasmid preparation

Construction of cDNA libraries/gene banks

Genotype: *endA1 hsdR17(rk-, mk+) supE44 thi -1 recA1 gyrA96 relA1 lac[F'proA+B+ lac-lqZfjM15:Tn10(TcR)]*



## CELL PREPARATION & GROWTH

### Competent cells preparation

NZYCompetent Cells Preparation Buffer is designed for the preparation of super competent *Escherichia coli* cells. The method is compatible with the classical heat shock transformation procedure and the transformation efficiencies are typically on the order of  $10^8$ - $10^9$  transformants/ $\mu\text{g}$  plasmid DNA with the most common *E. coli* strains.

#### NZYCompetent Cells Preparation Buffer

MB12001	100 mL	122 €
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### Culture media

NZYtech offers a selection of high quality culture media for a wide variety of applications. Our specific formulations were extensively tested for use in cloning, plasmid DNA preparation and protein expression.

#### Agar Powder for Drosophila (food grade)

MB50301	5 x 5 kg	2 799 €
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#### LB Broth (granulated)

MB02802	500 g	115 €
MB02803	1000 g	142 €

#### Tryptone

MB16701	1000 g	230 €
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#### LB Agar

MB11802	1000 g	164 €
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#### Yeast Extract, Micro Granulated

MB16401	1000 g	123 €
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#### Agar Granulated

MB02902	500 g	153 €
MB02903	1000 g	241 €

#### LB Broth (powder)

MB14501	500 g	71 €
MB14502	1000 g	94 €
MB14503	5000 g	384 €

#### SOC Broth

MB28001	500 g	123 €
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#### Sodium Chloride (NaCl)

MB15901	1000 g	30 €
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## Auto-Induction media

NZY Auto-Induction LB medium (powder) is an innovative culture medium developed for growing *Escherichia coli* to high cell densities, while obtaining high-levels of recombinant protein expression when using IPTG-inducible bacterial expression systems.

### NZY Auto-Induction LB medium (powder)\*

MBI7901	100 g	54 €
MBI7903	1000 g	355 €

\* Product not available for use or sale in the United States

No need for IPTG induction  
 No need to monitor cell growth  
 Ideal for High-Throughput (HTP) methods  
 High protein yields

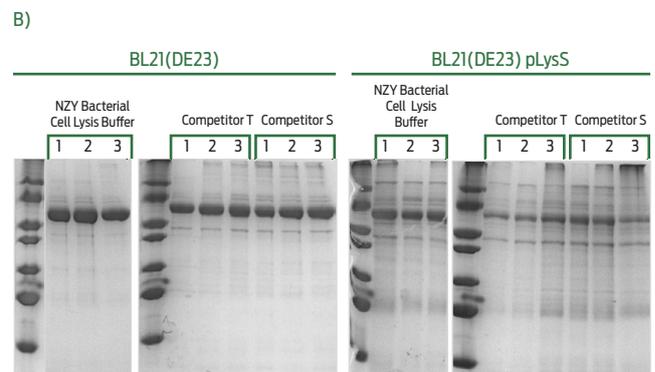
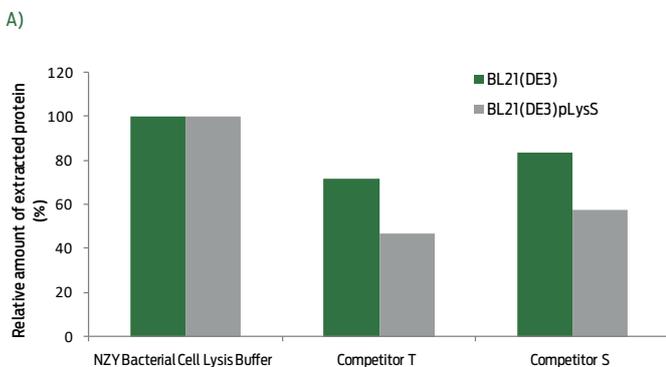
## Cell disruption

NZY Bacterial Cell Lysis Buffer is an innovative product for the gentle disruption of *Escherichia coli* cell wall that generates a homogeneous cell-free extract. It provides a rapid and cost effective alternative to mechanical methods such as French Press or sonication for releasing recombinant and native proteins. This extraction reagent is a Tris buffered formulation (pH 7.5) with Lysozyme and DNase I provided separately.

### NZY Bacterial Cell Lysis Buffer

MBI7801	250 mL	88 €
MBI7802	2 x 250 mL	163 €

Ready-to-use formulation  
 Ideal for High-Throughput (HTP) methods  
 DNase I and Lysozyme provided separately



Comparing the efficiency of *Escherichia coli* cell lysis for protein extraction using NZY Bacterial Cell Lysis Buffer and two similar competitor products. Cells from two strains of *E. coli* BL21(DE3) and BL21(DE3 pLysS) were harvested from 5 mL of cultured media and lysed (in triplicates) using three different protein extraction chemicals: NZY Bacterial Cell Lysis Buffer, Competitor T and Competitor S.

A) Levels of extracted protein obtained were evaluated. B) The recombinant proteins (in triplicates) were purified through IMAC and separated through SDS-PAGE.



## **ladders & markers**

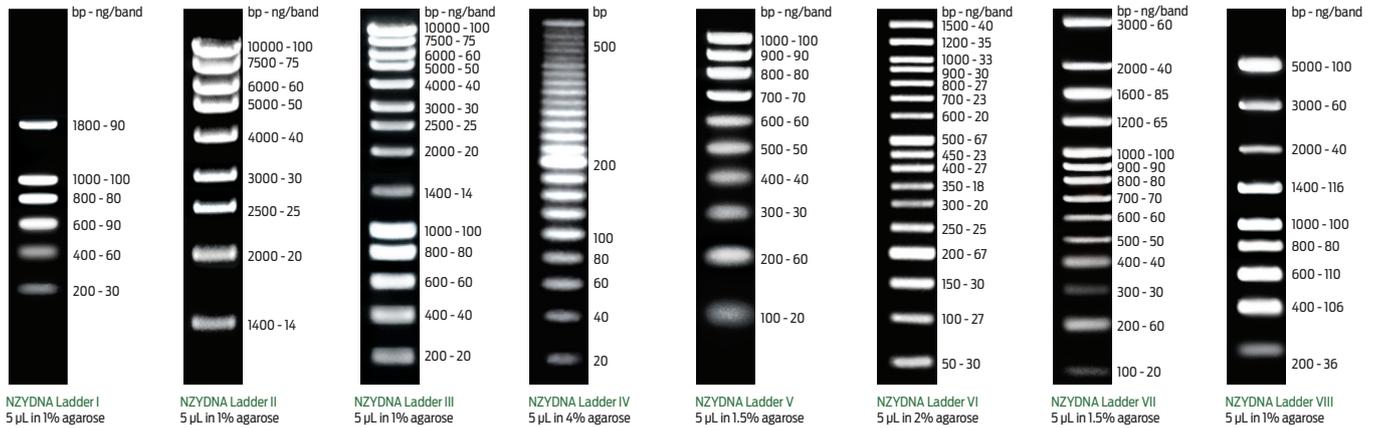
DNA LADDERS

PROTEIN MARKERS

# LADDERS & MARKERS

## DNA LADDERS

NZYtech offers a ready-to-use set of DNA ladders suitable for standard gel electrophoresis applications. Ladders can be used to quantify the acid nucleic concentration based on band intensity and/or to accurately determine the molecular weight of the nucleic acids molecules.



### NZYDNA Ladder I, 200-1800 bp

MB04103	500 µL (100 lanes)	54 €
MB04101	2 x 500 µL (200 lanes)	76 €
MB04102	5 x 500 µL (500 lanes)	153 €

### NZYDNA Ladder II, 1400-10000 bp

MB04303	500 µL (100 lanes)	54 €
MB04301	2 x 500 µL (200 lanes)	76 €
MB04302	5 x 500 µL (500 lanes)	153 €

### NZYDNA Ladder III, 200-10000 bp

MB04403	500 µL (100 lanes)	54 €
MB04401	2 x 500 µL (200 lanes)	76 €
MB04402	5 x 500 µL (500 lanes)	153 €

### NZYDNA Ladder IV, 20-500 bp

MB05801	250 µL (50 lanes)	175 €
MB05802	3 x 250 µL (150 lanes)	362 €

### NZYDNA Ladder V, 100-1000 bp

MB06103	500 µL (100 lanes)	54 €
MB06101	2 x 500 µL (200 lanes)	76 €
MB06102	5 x 500 µL (500 lanes)	153 €

### NZYDNA Ladder VI, 50-1500 bp

MB08903	500 µL (100 lanes)	54 €
MB08901	2 x 500 µL (200 lanes)	98 €
MB08902	5 x 500 µL (500 lanes)	175 €

### NZYDNA Ladder VII, 100-3000 bp

MB14703	500 µL (100 lanes)	54 €
MB14701	2 x 500 µL (200 lanes)	87 €
MB14702	5 x 500 µL (500 lanes)	164 €

### NZYDNA Ladder VIII, 200-5000 bp

MB17503	500 µL (500 lanes)	54 €
MB17501	2 x 500 µL (200 lanes)	76 €
MB17502	5 x 500 µL (500 lanes)	153 €

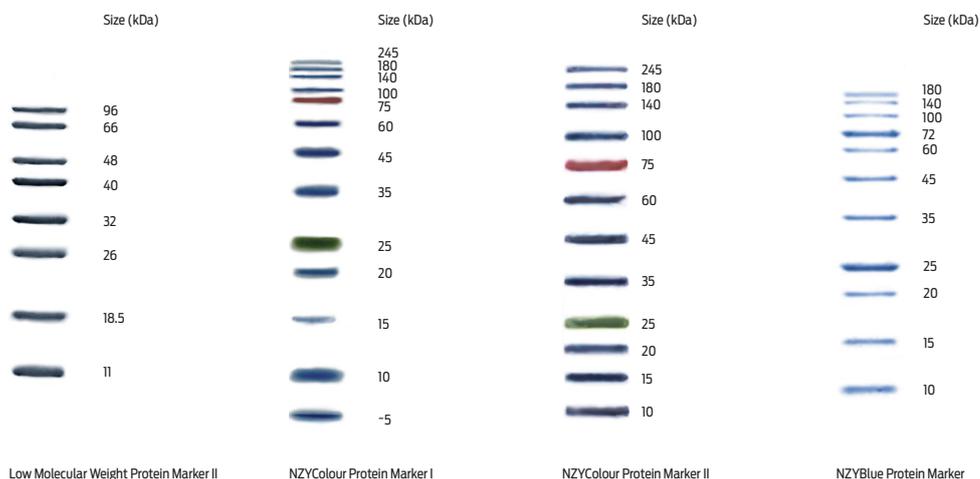
# PROTEIN MARKERS

NZYtech provides different ready to-use protein markers containing unstained or stained proteins. All protein markers are mixtures of highly purified proteins of known molecular weight developed for assessing proteins relative molecular weights.

Low Molecular Weight (LMW) Protein Marker II, 11-96 kDa			NZYColour Protein Marker I, 5-245 kDa		
MB21401	3 x 500 µL (300 lanes)	136 €	MB21501	500 µL (125 lanes)	199 €
MB21402	6 x 500 µL (600 lanes)	230 €	MB21502	4 x 500 µL (500 lanes)	682 €

NZYBlue Protein Marker, 10-180 kDa			NZYColour Protein Marker II, 10-245 kDa		
MB17601	500 µL (125 lanes)	146 €	MB09002	500 µL (125 lanes)	188 €
MB17602	4 x 500 µL (500 lanes)	524 €	MB09003	4 x 500 µL (500 lanes)	469 €





## loading & staining

LOADING

STAINING

# LOADING & STAINING

## LOADING

### For DNA

#### 6x NZYDNA loading dye

MB13101	5 x 1 mL	39 €
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### For Proteins

#### 5x SDS-PAGE sample loading buffer

MB11701	5 x 1 mL	39 €
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## STAINING

### For DNA

NZYtech offers a DNA stain that can be used as a safer alternative to the traditional ethidium bromide (EtBr) and presenting equal sensitivity. GreenSafe Premium can be either incorporated in the agarose gels or used post-running.

#### GreenSafe Premium

MB13201	1 mL	99 €
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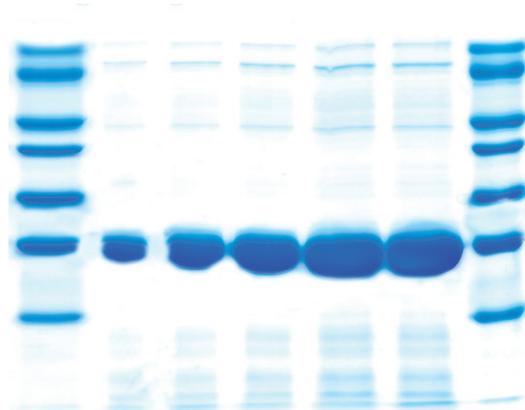
### For Proteins

As an alternative to the traditional Coomassie Blue staining for detecting proteins in SDS-PAGE, NZYtech offers BlueSafe, a very sensitive and safe single-step protein stain.

#### BlueSafe

MB15201	1000 mL	159 €
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BlueSafe: High contrast and sensitivity





# **agaroses & buffers**

**AGAROSSES**

**READY-TO-USE BUFFERS**

# AGAROSSES & BUFFERS

## AGAROSSES

NZYtech offers two different agaroses that cover the most used applications in the laboratory.

	Analytical separation ≥ 0.5 kb	Preparative electrophoresis	DNA typing	Blotting
Electrophoresis grade	ⓧ		ⓧ	ⓧ
Ultrapure grade	ⓧ	ⓧ	ⓧ	ⓧ

### Agarose (electrophoresis grade)

MB02702	100 g	99 €
MB02703	500 g	289 €
MB02704	1000 g	519 €

### Agarose (ultrapure grade)

MB05201	100 g	109 €
MB05202	500 g	409 €

## READY-TO-USE BUFFERS

### PBS (10x) pH 7.4 (liquid)

MB25201	1000 mL	94 €
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### TAE Buffer (50x) pH 8.3 (liquid)

MB20901	1000 mL	86 €
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### PBS (10x) pH 7.4 (powder)

MB18201	1 pouch (1 x 10 L)	36 €
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### TBE Buffer (10x) (liquid)

MB27701	1000 mL	58 €
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# MOLECULAR BIOLOGY

## antibiotics & biochemicals

ANTIBIOTICS

BIOCHEMICALS

# ANTIBIOTICS & BIOCHEMICALS

## ANTIBIOTICS

### Ampicillin (sodium salt)

MB02101	5 g	34 €
MB02102	25 g	89 €
MB02103	50 g	119 €

### Chloramphenicol

MB02402	25 g	109 €
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### Kanamycin Monosulphate

MB02001	5 g	82 €
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### Carbenicillin (disodium)

MB16501	5 g	65 €
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### Gentamicin (sulphate)

MB16601	5 g	43 €
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## BIOCHEMICALS

### D(+) - Glucose Anhydrous

MB16801	1000 g	42 €
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### Glycerol

MB16101	1000 mL	99 €
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### IPTG

MB02602	5 g	49 €
MB02603	25 g	135 €

### DEPC-treated Water

MB43701	5 x 1 mL	29 €
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### DNA & RNA Cleaner

MB46201	250 mL	27 €
MB46202	500 mL (Refill)	51 €

### Nucleases & Nucleic Acid Cleaner

MB48301	250 mL	36 €
MB48302	500 mL (Refill)	65 €

### Sodium Chloride (NaCl)

MB15901	1000 g	30 €
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### X-Gal

MB02501	1 g	55 €
MB02502	5 g	209 €

### Water for Molecular Biology

MB11101	1000 mL	55 €
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### Mycoplasma Cleaner

MB46401	250 mL	32 €
MB46402	500 mL (Refill)	62 €

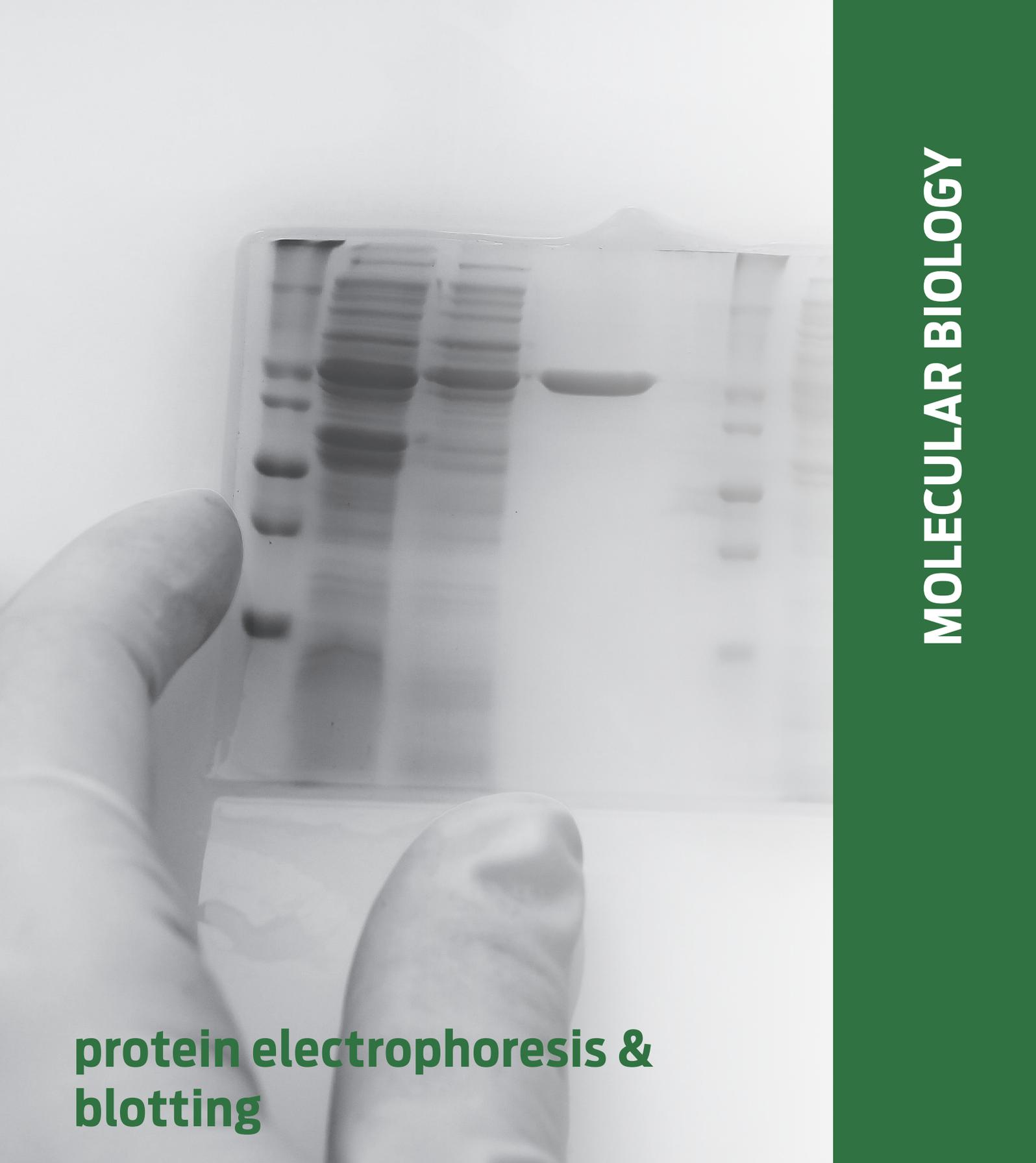
### RNase & DNase Cleaner

MB46301	250 mL	27 €
MB46302	500 mL (Refill)	51 €

## The Science of Cleaning

Learn how NZYtech Cleaners enhance precision and efficiency in molecular biology by overcoming the limits of traditional cleaning methods. Scan the QR code to read the whitepaper.





**protein electrophoresis & blotting**

PROTEIN ELECTROPHORESIS & TRANSFER

PROTEIN QUANTIFICATION

WESTERN BLOTTING

# PROTEIN ELECTROPHORESIS & BLOTTING

## PROTEIN ELECTROPHORESIS & TRANSFER

### NZY Bis-Tris Precast Gel (4-12%, 12 wells)

MB46501	10 gels	109 €
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### NZY Tris-Glycine Precast Gel (4-15%, 12 wells)

MB46601	10 gels	109 €
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### Acrylamide/bis-Acrylamide (29:1 Solution)

MB04501	500 mL	126 €
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### Acrylamide/bis-Acrylamide (37.5:1 Solution)

MB15601	500 mL	126 €
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### Tris-Glycine Buffer 10X

MB19401	1000 mL	52 €
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### Tris-Glycine-SDS Buffer 10X

MB19501	1000 mL	52 €
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### DTT -Dithiothreitol

MB03101	5g	40 €
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### SDS Solution 20%

MB11601	500 mL	104 €
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### NZY 1X MOPS-SDS Buffer Powder

MB46701	1 pouch (for 1 L)	10 €
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MB46702	5 pouches (for 5 L)	43 €
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### NZY 1X Tris-Glycine-SDS Buffer Powder

MB46801	1 pouch (for 1 L)	10 €
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MB46802	5 pouches (for 5 L)	43 €
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### Tris base

MB01601	1000 g	125 €
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### TEMED

MB03501	25 mL	52 €
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### Ammonium Persulphate (APS)

MB03403	100 g	98 €
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### Glycine

MB01401	1000 g	57 €
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### SDS Powder

MB18101	500 g	169 €
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## PROTEIN QUANTIFICATION

### NZY Bradford reagent

MB19801	500 mL	174 €
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## WESTERN BLOTTING

### BSA Low Endotoxin

MB47001	10 g	25 €
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MB47002	100 g	176 €
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MB47003	1000 g	1358 €
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### NZY Standard ECL

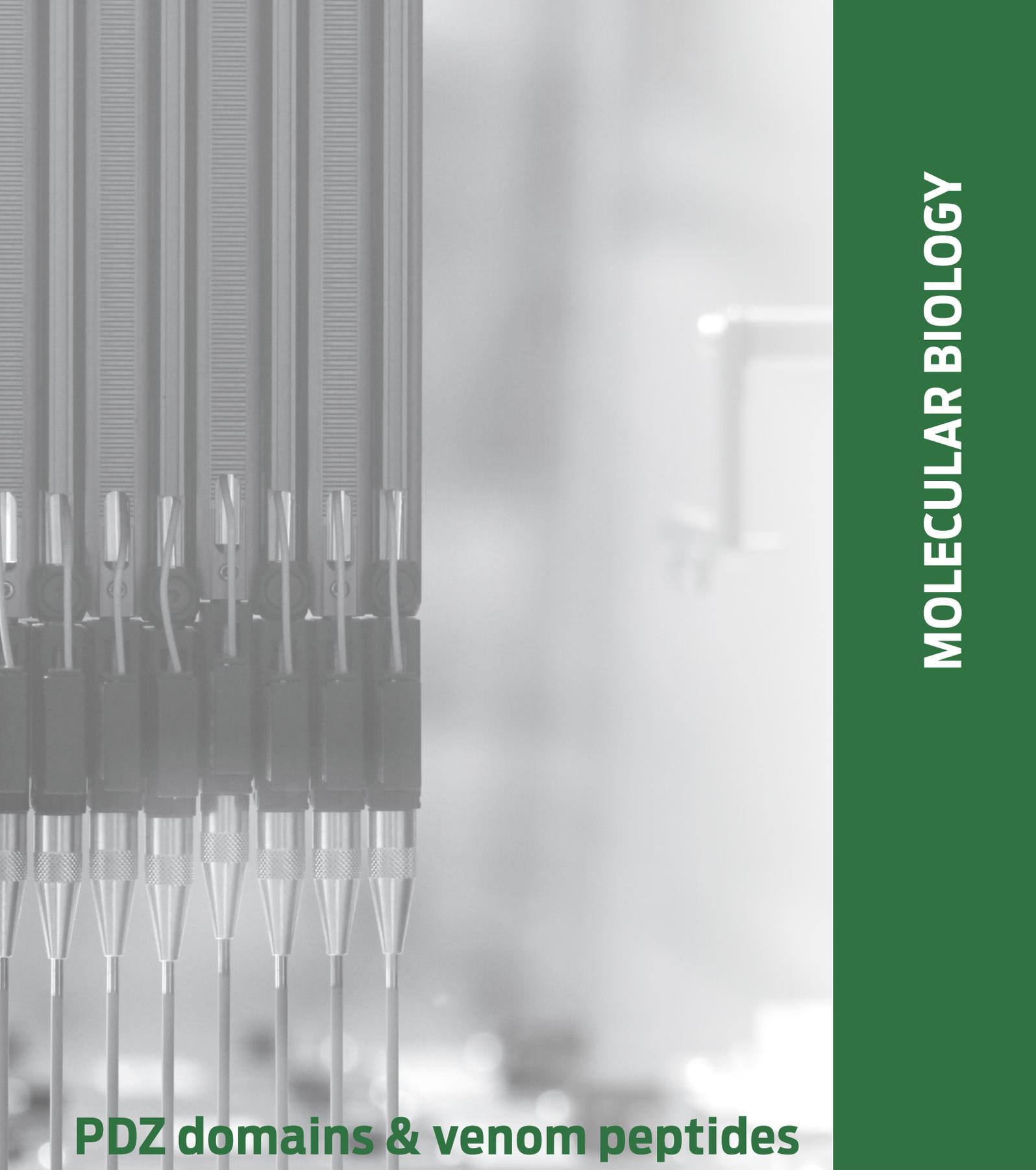
MB40101	250 mL	125 €
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### Milk, Dry Powder

MB26001	100 g	39 €
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### NZY Advanced ECL

MB40201	250 mL	135 €
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# **PDZ domains & venom peptides**

**PDZ DOMAINS**

**VENOM PEPTIDES**

# PDZ DOMAINS

PDZ domains are structural modules of 80 to 90 amino acids found in signaling proteins of bacteria, yeast, plants, viruses and animals (Vicentelli et al. 2015, Nature Methods 12, 787-93). PDZ is an acronym combining the first letters of three proteins, which were first discovered to contain these domains: Post synaptic density protein (PSD95), Drosophila disc-large tumor suppressor (Dlg1), and Zonula occludens-1 protein (zo-1). PDZ domains play an essential role in a number of cellular processes by facilitating protein scaffolding and assembly of protein complexes. Protein complex formation between PDZ target molecules can lead to a number of signaling and regulatory cascades that may either promote or inhibit the activation of certain proteins. NZYtech offers a library of representative recombinant PDZ domains of the human proteome which includes 120 different constructs. For more information, please visit NZYtech website at [www.NZYtech.com](http://www.NZYtech.com).

# VENOM PEPTIDES

Animal venoms are highly complex molecular cocktails containing a wide range of biologically active peptides that target, with high selectivity and efficacy, a variety of membrane receptors. These peptides and their biological activities possess important pharmacological, therapeutic and biotechnological values. Venom peptides are highly stable molecules displaying formidable affinity and selectivity while presenting low immunogenicity, making them attractive candidates for the development of novel therapeutics.

Venom peptides generally contain between 20 to 120 residues and include up to eight disulfide bonds that are critical for both biological activity and stability.

In recent years, considerable emphasis is being put on the discovery of novel molecules with therapeutic interest and venom peptides appear as a source of potential drugs. Unfortunately, the use of venom peptides as therapeutic or biotechnological molecules is still hampered by the difficulty to produce native and active proteins in sufficient amounts. In order to increase the availability of these molecules for academic or pharmaceutical partners, NZYtech is proud to offer a library of representative animal recombinant Venom Peptides. Our recombinant Venom Peptides are subjected to a variety of highly stringent quality control protocols to reach high purity levels. For more information, please visit NZYtech website at [www.NZYtech.com](http://www.NZYtech.com).



**labware**

PCR TUBES, PLATES & STRIPS

ADHESIVE SEALS

**MOLECULAR BIOLOGY**

# LABWARE

At NZYtech we believe your PCR samples are too precious for low quality consumables. Please test NZYtech throughly optimized and proved labware and take your PCR amplifications to the next level. Regarding PCR Plates and Strips compatibility please refer to [www.NZYtech.com](http://www.NZYtech.com)

## PCR TUBES & STRIPS

### 0.2 mL Individual PCR tubes with flat caps

LW04901	1000 tubes	99 €
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### Strip 8 x 0.2 mL tubes + flat optical strip caps

LW04801	250 strips + caps	319 €
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### Strips of 8 flat optical caps

LW05201	120 strips	59 €
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## PCR PLATES

### 96 Well Skirted PCR plate Low Profile

LW04501	25 plates	119 €
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### 96 Well Semi Skirted PCR plate

LW04601	25 plates	119 €
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### 96 Well Non Skirted PCR plate

LW04701	25 plates	119 €
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### Low P. 96 well semi sk. PCR plate, Roche, white

LW04101	50 plates	206 €
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## ADHESIVE SEALS

### qPCR adhesive clear plate seals

LW05101	50 sheets	179 €
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### Adhesive PCR plate seals

LW05001	100 sheets	159 €
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Inquire us about labware compatibility





# MOLECULAR SERVICES

GENE SYNTHESIS

HTP PROTEIN EXPRESSION AND PURIFICATION

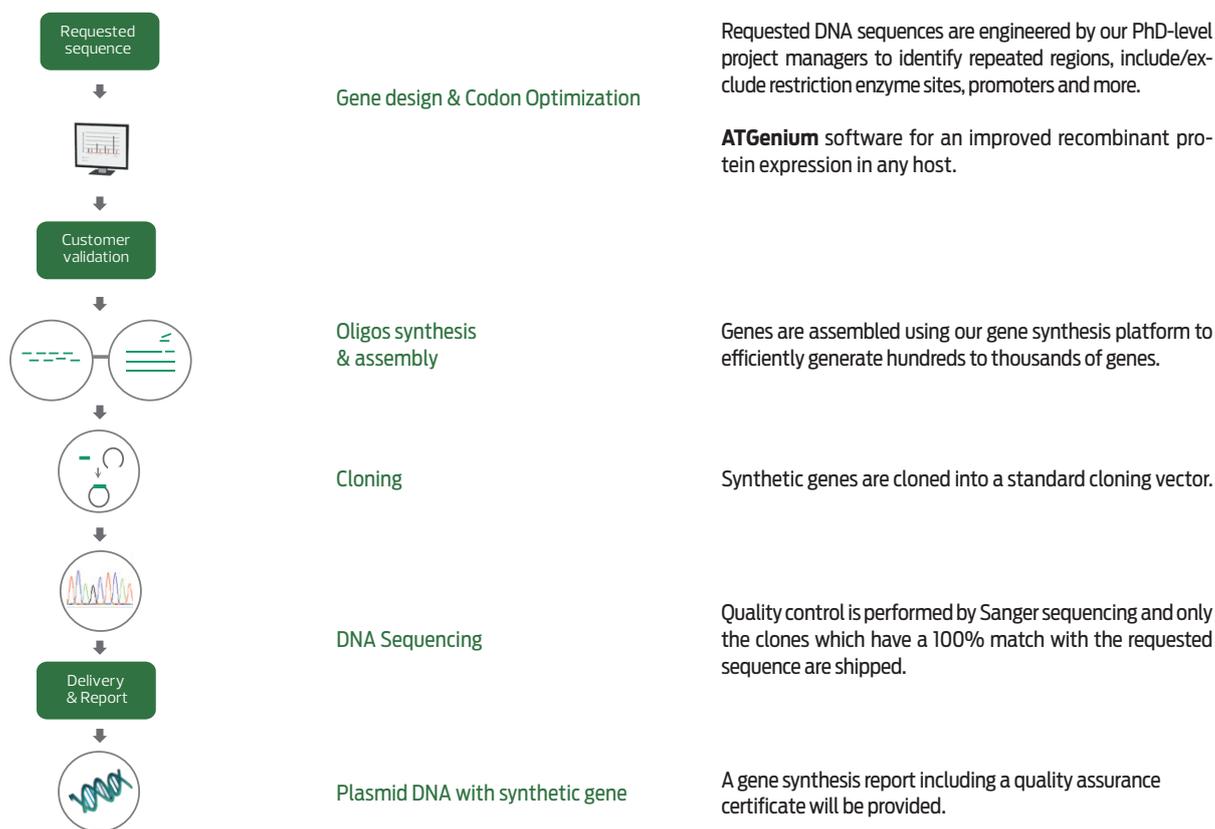
SITE-DIRECTED MUTAGENESIS

PEPTIDE SYNTHESIS

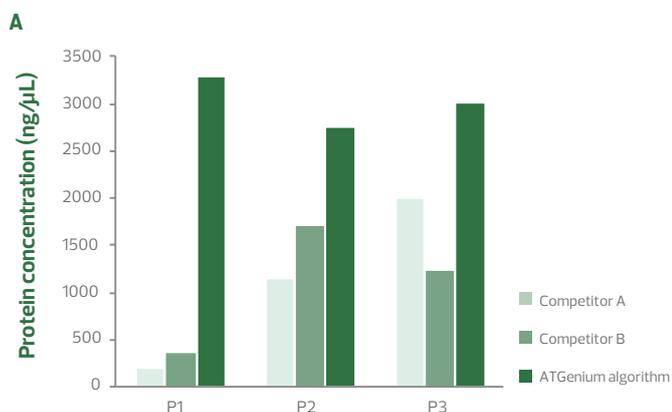
OLIGOS & PROBES

# GENE SYNTHESIS

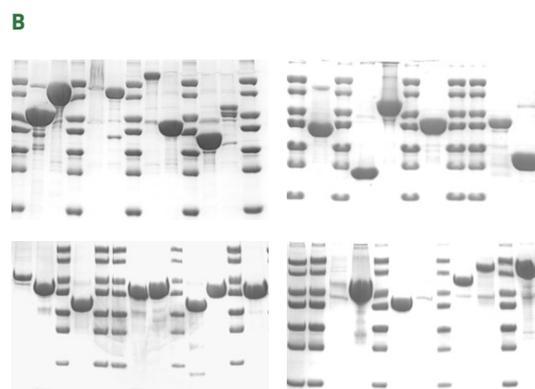
Gene synthesis has become an important tool in many fields of recombinant DNA technology. Whether you have limited cloning experience or simply want to save time, NZYtech's Gene Synthesis service helps you to quickly move your ideas from the planning stage to the laboratory. A highly motivated team is eager to provide you with a very efficient service affording considerable savings of time and money. Either if you select the custom or High-Throughput (HTP) Gene Synthesis service you will be offered a premium service that will deliver high quality and downstream efficacy.



NZYtech's scientists have also developed a highly robust gene design optimization software - **ATGenium** codon optimization algorithm - to maximize protein expression. Our proprietary algorithm comprehensively optimizes critical factors in transcription, translation and co-translational protein folding to deliver highest levels of expression in any host system. This service is offered at no extra cost for all gene synthesis services if required.



**A.** Levels of protein expression of three different eukaryotic proteins in *Escherichia coli* BL21 (DE3). The genes encoding these proteins were optimized by three algorithms for codons optimization, by two different competitors (light green) and using the ATGenium codon optimization algorithm developed by NZYtech (dark green).



**B.** High-throughput recombinant protein expression of CAZymes (Carbohydrate Active enzymes). Genes encoding these proteins were optimized using ATGenium, cloned into pHTP1 expression vector and overexpressed in *E. coli* BL21 (DE3). High protein expression yields were obtained.

## CUSTOM GENE SYNTHESIS

NZYtech's Custom Gene Synthesis service provides *in vitro* chemical synthesis, cloning and 100% sequence verification of any desired DNA sequence.

Cloning into a selection of bacterial, mammalian and viral expression vectors, namely into pHTP *E. coli* expression vectors (for an additional price).

### Gene Synthesis

Gene Synthesis (DNA fragments <300 bp)	GS00313	99 €/gene
Gene Synthesis (DNA fragments 300-500 bp)	GS00312	99 €/gene
Gene Synthesis (DNA fragments 501-1000 bp)	GS00308	0,19 €/bp
Gene Synthesis (DNA fragments 1001-2000 bp)	GS00309	0,21 €/bp
Gene Synthesis (DNA fragments 2001-5000 bp)	GS00310	0,21 €/bp

Flexible, custom gene design  
Free codon optimization – ATGenium  
Sequences 100% verified



### Gene sub-cloning

Gene sub-cloning (other vectors) (combined with gene synthesis)	MS00208	49 €/gene
Gene sub-cloning into pHTP vectors (combined with gene synthesis)	MS00209	39 €/gene

## HIGH-THROUGHPUT GENE SYNTHESIS

NZYtech's R&D team has developed a High-Throughput (HTP) Gene Synthesis platform to efficiently generate hundreds to thousands of synthetic genes. We offer a high quality HTP Gene Synthesis service for DNA fragments below 5kb. HTP Gene Synthesis will allow to tackle difficult research projects such as: determination of structure-function relationships in different proteins, creation of novel antibody libraries, screening of gene variant libraries or optimization of protein function and expression. Our codon optimization technology - ATGenium algorithm - allows obtaining the highest possible levels of gene expression in different expressions hosts while retaining high levels of protein solubility.

### HTP Gene Synthesis (> 24 genes)

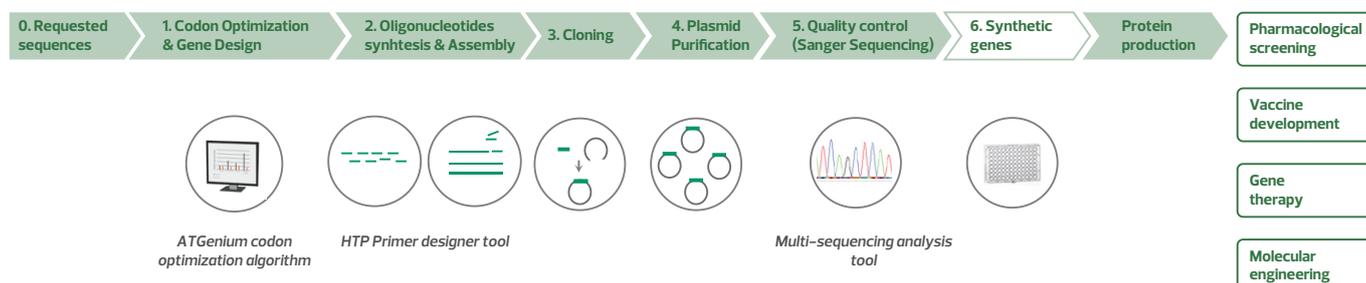
HTP Gene Synthesis (DNA fragments <300 bp)	HS00605	79 €/gene
HTP Gene Synthesis (DNA fragments 300-500 bp)	HS00601	79 €/gene
HTP Gene Synthesis (DNA fragments 501-1000 bp)	HS00602	0,16 €/base
HTP Gene Synthesis (DNA fragments 1001-2000 bp)	HS00603	0,18 €/base
HTP Gene Synthesis (DNA fragments 2001-5000 bp)	HS00604	0,18 €/base

Flexible gene design process  
Free codon optimization  
100% sequence accuracy guaranteed  
Cloning into a selection of bacterial, mammalian and viral expression vectors, namely into pHTP *E. coli* expression vectors (for an additional price)



### HTP Gene Sub-cloning (> 24 genes)

High-Throughput Gene Cloning (pHTP vectors)	HS00701	25 €/gene
High-Throughput Gene Cloning (other vector)	HS00702	29 €/gene



## GENE FRAGMENTS

NZYtech's Gene Fragments Synthesis platform accommodates the synthesis of a substantial quantity of dsDNA gene fragments at more competitive prices. This service allows researchers to obtain a large quantity of custom-made gene fragments without the need for expensive equipment or dedicated facilities.

Gene Fragments			HTP Gene Fragments (> 24 Fragments)		
Gene Fragments (DNA fragments <300 bp)	GF00115	79 €	HTP Gene Fragments (DNA fragments <300 bp)	HF00108	59 €
Gene Fragments (DNA fragments 300-400 bp)	GF00108	79 €	HTP Gene Fragments (DNA fragments 300-400 bp)	HF00101	59 €
Gene Fragments (DNA fragments 401-500 bp)	GF00109	79 €	HTP Gene Fragments (DNA fragments 401-500 bp)	HF00102	59 €
Gene Fragments (DNA fragments 501-750 bp)	GF00110	109 €	HTP Gene Fragments (DNA fragments 501-750 bp)	HF00103	89 €
Gene Fragments (DNA fragments 751-1000 bp)	GF00111	129 €	HTP Gene Fragments (DNA fragments 751-1000 bp)	HF00104	109 €
Gene Fragments (DNA fragments 1001-1250 bp)	GF00112	169 €	HTP Gene Fragments (DNA fragments 1001-1250 bp)	HF00105	149 €
Gene Fragments (DNA fragments 1251-1500 bp)	GF00113	199 €	HTP Gene Fragments (DNA fragments 1251-1500 bp)	HF00106	179 €
Gene Fragments (DNA fragments 1501-1750 bp)	GF00114	229 €	HTP Gene Fragments (DNA fragments 1501-1750 bp)	HF00107	209 €

## HTP PROTEIN EXPRESSION AND PURIFICATION

### HTP Protein Expression and Purification (> 24 proteins)

HTP Protein Expression and Purification      HS00801      Price upon request

## SITE-DIRECTED MUTAGENESIS

Site-directed mutagenesis is crucial in molecular biology for precisely introducing specific genetic changes into DNA sequences, allowing researchers to study the functional implications of these alterations. This technique is instrumental in understanding the role of individual amino acids or regulatory elements in protein function and/or gene expression.

### HTP Gene Fragments

Site-directed mutagenesis - Standard - 1 mutant	MS00306	299 €/gene
Site-directed mutagenesis - Standard - 3 mutants	MS00307	269 €/gene
Site-directed mutagenesis - Standard - 5 mutants	MS00308	229 €/gene
Site-directed mutagenesis - Complex and/or Multiple	MS00309	Price upon request

## PEPTIDE SYNTHESIS

NZYtech offers a high-quality peptide synthesis service designed to ensure our customer's complete satisfaction. Every peptide is subjected to a variety of performance control steps to guarantee the highest quality. Peptides may be provided crude, desalted, or with >75% to >98% purity. In addition, NZYtech peptides can be subjected to a variety of chemical modifications upon request.

Lyophilized peptide delivered with the required sequence, purity and quantity  
Several modifications available: phosphorylation, methylation, acetylation, amidation, fluorescence/dye labeling  
Additional discounts for large-scale peptide synthesis orders



# OLIGOS & PROBES

Our high-performing qPCR probes and oligos deliver accuracy and reliability for molecular research and diagnostics. Produced in ISO-certified facilities, they ensure consistent quality with customizable scales and over 300 modification options. From dry to dissolved forms and diverse purification methods, our probes and oligos offer tailored solutions for your research needs.

## OLIGOS

DNA oligos are synthesized under low salt conditions, eliminating the need for purification in most basic molecular biology applications. Additional purification is available for sensitive applications, especially recommended for oligos exceeding 40 bases. Choose from four purification options: Standard desalting, Cartridge, HPLC, or PAGE. Discover a variety of over 300 modifications, providing every available option for customizing your oligos.

Example of a 20 nt oligo

Synthesis Scale (nmol)	Min yield (nmol)*	Purification	List Price per base	Promotional Price per base	Via Website	Oligo Cost	Promotional Price	Via Website
10	10	Standard Desalting	0.17 €	~0.14 €	<b>~0.13 €</b>	3.40 €	~2.89 €	<b>~2.75 €</b>
40	20	Standard Desalting	0.20 €	~0.17 €	<b>~0.16 €</b>	4.00 €	~3.40 €	<b>~3.23 €</b>
200	95	Standard Desalting	0.58 €	~0.49 €	<b>~0.47 €</b>	11.60 €	~9.86 €	<b>~9.37 €</b>

\* Guaranteed yield standard oligos - For non-labeled, non-HPLC/PAGE purified standard DNA oligos up to 30 bases we guarantee a minimum yield. However in many cases you will receive more than the guaranteed minimum!

## PROBES

High performing qPCR probes that guarantee accuracy and reliability in molecular research and diagnostics. Suitable for various research scales, these probes provide consistent precision.

qPCR probes can be shipped in dry, dissolved or mixed forms. Standard probes are delivered in a tube at a concentration of 100 pmol/µL. Probes synthesis scales include 40 nmol, 200 nmol and 1000 nmol.

40 nmol synthesis protocol, approx. 5 nmol min. yield

5' Reporter	3' Quencher	List Price	Promotional Price	Via Website
FAM HEX Texas-Red Cy3 Cy5 JOE ROX Yakima Yellow Dyomicdye	BHQ	142 €	~120 €	<b>~115 €</b>
		233 €	~198 €	<b>~188 €</b>

All NZYtech's qPCR probes are delivered HPLC purified as standard, this is included in the price.



# GLYCOBIOLOGY

GLYCOSIDE HYDROLASES

CARBOHYDRATE ESTERASES

POLYSACCHARIDE LYASES

AUXILIAR ACTIVITIES

CARBOHYDRATE-BINDING MODULES

MINI-CELLULOSOMES & OTHER ENZYMES

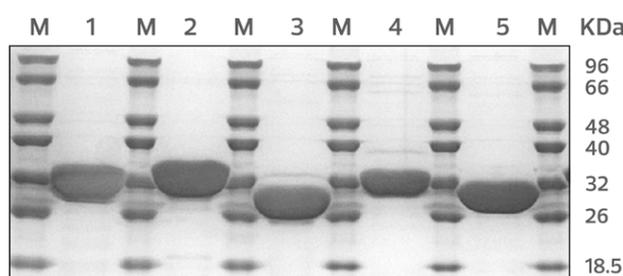
# NZYtech CAZYMES: HIGHLY PURE, STABLE AND OPTIMIZED RESEARCH TOOLS FOR SCIENCE AND INDUSTRY

## 1. A LARGE AND DIVERSE PORTFOLIO

NZYtech R&D department, individually or in collaboration with the CAZy community, is building a large and diverse portfolio to foster science and industrial progress. All proteins have a recombinant origin and are produced and purified from *Pichia pastoris* or *Escherichia coli*. In this catalogue you will find more than 1000 CAZymes, covering >200 CAZy families ([www.cazy.com](http://www.cazy.com)) and >150 EC number activities ([www.enzyme.expasy.org](http://www.enzyme.expasy.org)).

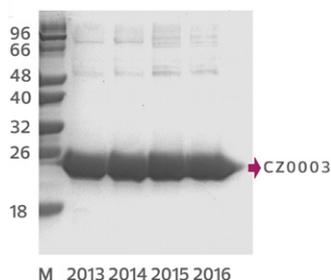
## 2. ULTRA-PURE FOR A VARIETY OF APPLICATIONS

NZYtech CAZymes are purified using a comprehensive list of chromatography protocols to achieve the highest level of protein purity. As an example, the figure below provides an SDS-PAGE analysis of CAZymes CZ0604, CZ0580, CZ0621, CZ0633 and CZ0641. Purification level of all CAZymes listed in this catalogue may be found at NZYtech website ([www.nzytech.com](http://www.nzytech.com)).



## 3. REDUCED BATCH-TO-BATCH VARIATION AND LONG STORAGE STABILITY

NZYtech devotes significant efforts to minimize batch to batch variation and improve protein stability. In the Figure below 4 batches of Xylanase 11A from *Clostridium thermocellum* (CZ0003), produced in 2013, 2014, 2015 and 2016, were tested in March 2018 for molecular integrity and protein purity. The data reveals that there is minimal variation in molecular integrity up to 5 years after production (Panel B). Thus, it is important to follow the storage guidelines provided.



## 4. NZYtech CAZYMES ARE THOROUGHLY CHARACTERIZED AND THEIR BIOCHEMICAL PROPERTIES DESCRIBED IN LITERATURE

Although NZYtech provides CAZymes as highly pure recombinant proteins and not functionally assessed, the majority of NZYtech CAZymes have been thoroughly characterized and their enzymatic properties is described in the literature. The reference of the paper describing such properties is provided in the product manual which allows you to select the one most suited for your experiments.

## Glycoside Hydrolases

ACETYL GALACTOSAMINIDASES	(5 entries)	PHOSPHO- $\beta$ -GLUCOSIDASES	(16 entries)
ACETYLGLUCOSAMINIDASES	(19 entries)	GLUCURONIDASES	(14 entries)
AGARASES	(17 entries)	GLUCURONOXYLANASES	(4 entries)
AMYLASES	(15 entries)	HEXOSAMINIDASES	(13 entries)
AMYLOMALTASES	(7 entries)	HYALURONIDASES	(2 entries)
ARABINANASES	(8 entries)	INULASES	(2 entries)
ARABINOFURANOSIDASES	(35 entries)	LAMINARINASES	(16 entries)
ARABINOPYRANOSIDASES	(1 entries)	LEVANASES	(4 entries)
ARABINOXYLANASES	(2 entries)	LEVANSUCRASES	(3 entries)
CARRAGEENASES	(2 entries)	LICHENASES	(11 entries)
CELLOBIOHYDROLASES	(10 entries)	LYSOZYMES	(4 entries)
CELLODEXTRINASES	(2 entries)	$\alpha$ -MANNANASES	(3 entries)
CELLULASES	(79 entries)	$\beta$ -MANNANASES	(25 entries)
CHITINASES	(7 entries)	$\alpha$ -MANNOSIDASES	(22 entries)
CHITOSANASES	(3 entries)	$\beta$ -MANNOSIDASES	(6 entries)
DEXTRANASES	(4 entries)	MANNOSYLGLUCOSE	(2 entries)
FRUCTANASES	(3 entries)	PHOSPHORYLASES	
FRUCTOFURANOSIDASES	(4 entries)	OLIGOSACCHARIDE REDUCING-	(2 entries)
FRUCTANASES	(3 entries)	-END XYLANASES	
FRUCTOFURANOSIDASES	(4 entries)	PEPTIDOGLYCAN LYTIC	(4 entries)
FUCOSIDASES	(16 entries)	EXOTRANSGLYCOSYLASES	
GALACTANASES	(6 entries)	POLYGALACTURONASES	(7 entries)
$\alpha$ -GALACTOSIDASES	(15 entries)	PORPHYRANASES	(4 entries)
$\beta$ -GALACTOSIDASES	(21 entries)	PULLULANASES	(3 entries)
PHOSPHO- $\beta$ -GALACTOSIDASES	(4 entries)	RHAMNOGALACTURONASES	(16 entries)
$\beta$ -D-GALACTOSYL-1,4-L-RHAM-	(2 entries)	SIALIDASES	(6 entries)
NOSE PHOSPHORYLASES		TREHALASES	(13 entries)
GALACTOSYL-N-ACETHYHEXOSA-	(2 entries)	$\Delta$ -4,5-UNSATURATED	(7 entries)
MINE PHOSPHORYLASES		$\beta$ -GLUCURONYL HYDROLASES	
GALACTURONIDASES	(6 entries)	XYLANASES	(43 entries)
GLUCANSUCRASES	(5 entries)	XYLOGLUCANASES	(7 entries)
GLUCOSAMINIDASES	(3 entries)	XYLOSIDASES	(17 entries)
$\alpha$ -GLUCOSIDASES	(13 entries)	OTHER ACTIVITIES	(26 entries)
$\beta$ -GLUCOSIDASES	(25 entries)		

## Carbohydrate esterases

ACETYL XYLAN ESTERASES	(18 entries)
ACETYLGLUCOSAMINE	(8 entries)
DEACETYLASES	
DIACETYLCHITOBIOSE	(1 entries)
DEACETYLASES	
FERULOYL ESTERASES	(96 entries)
GLUCURONYL ESTERASES	(7 entries)
PECTIN ACETYL ESTERASES	(4 entries)
PECTIN METHYLESTERASES	(4 entries)

## Polysaccharide lyases

ALGINATE LYASES	(14 entries)
CHONDROITIN LYASES	(4 entries)
HEPARIN LYASES	(6 entries)
HYALURONATE LYASES	(1 entries)
OLIGOGALACTURONATE LYASES	(2 entries)
PECTATE LYASES	(28 entries)
PECTIN LYASES	(2 entries)
POLY- $\alpha$ -GULURONATE LYASES	(2 entries)
RHAMNOGALACTURONAN LYASES	(8 entries)
ULVAN LYASES	(8 entries)
XANTHAN LYASES	(1 entries)
RHAMNOGLUCURONATE LYASES	(1 entries)

## Auxiliar activities

LACCASES	(3 entries)
LYTIC POLYSACCHARIDE MONOOXYGENASES	(5 entries)

## Carbohydrate-binding modules

CBMs	(103 entries)
GFP-CBM	(57 entries)
ZZ-CBM	(2 entries)

## Mini-cellulosomes & other enzymes

MINI-CELLULOSOMES	(3 entries)
CELLOBIOSE DEHYDROGENASE	(1 entries)
XYLOSE ISOMERASE	(1 entries)



# ANALYTICAL PRODUCTS

## analytical test Kits

UV TESTS

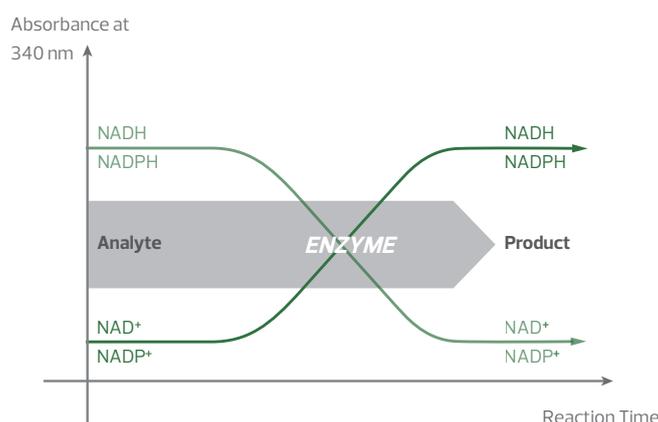
COLORIMETRIC TESTS

# PRINCIPLES & FEATURES

## UV TESTS

NZYtech test Kits are based on enzymatic reactions and performed using spectrophotometric methods.

The principle of the enzymatic tests is based on the NAD(P)<sup>+</sup>/NAD(P)H system and uses highly pure enzymes engineered to display a premium performance. The enzymes used in these analytical Kits produce or consume NAD(P)H, which strongly absorbs the UV radiation at 340 nm (extinction coefficient of 6300 M<sup>-1</sup>cm<sup>-1</sup>).



## COLORIMETRIC TESTS

The principle of the enzymatic tests based on a chromogenic reaction is the formation of a coloured compound, which absorbs at the visible region of the spectrum. The coloured compound results from the interaction between the product of a first enzymatic reaction and a chromogenic compound. In this case, the concentration of the analyte must be determined by using a standard curve.

- Endpoint analysis
- Easy to use, simple protocols
- Rapid analysis
- Accuracy and precision
- Safe to the operator
- Standards included

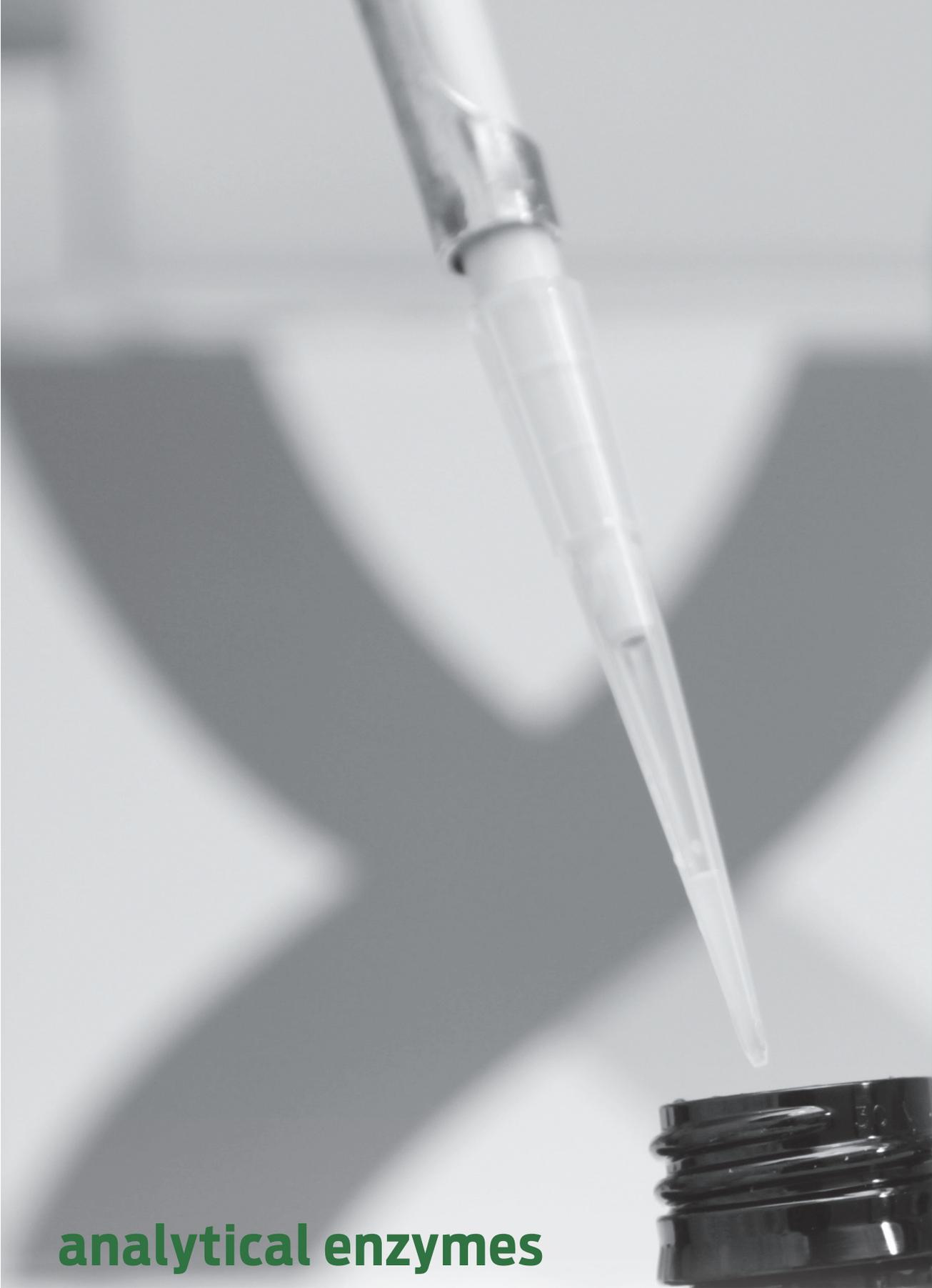


## REQUIRED MATERIAL

- Spectrophotometer
- Micropipettes set with disposable plastic tips to accurately dispense volumes from 20 µL to 1000 µL
- Cuvettes
- Basic filtering or other simple sample treatment device

# APPLICATIONS

Nome	Kit size	Range	Detection Limit	Food Industry	Feed Industry	Wine Industry	Fermentation Industry	Dairy Industry	Biofuel	Catalogue No	Price
Acetaldehyde, UV Method	50 tests	0.25-200 mg/L	0.176 mg/L							AK00051	229 €
Acetic Acid, UV Method	53 tests	0.15-200 mg/L	0.14 mg/L							AK00081	229 €
Ammonia, UV Method	96 tests	10-70 mg/L	0.07 mg/L							AK00091	229 €
L-Arginine/Urea/Ammonia, UV Method	50 tests each	50-400 mg/L L-arginine 20-140 mg/L urea 10-70 mg/L ammonia	0.37 mg/L L-arginine 0.13 mg/L urea 0.07 mg/L ammonia							AK00171	259 €
Ethanol, UV Method	60 tests	0.12-120 mg/L	0.093 mg/L							AK00061	229 €
D-Fructose/D-Glucose, UV Method	110 tests of each*	2-800 mg/L	0.66 mg/L							AK00041	229 €
D-Glucose HK, UV Method	110 tests	2-800 mg/L	0.66 mg/L							AK00031	229 €
D-Glucose (God+POD), Colorimetric Method	660 tests	100-1000 mg/L	100 mg/L							AK00161	229 €
L-Glutamine/Ammonia, UV Method	50 tests of each	10-400 mg/L L-glutamine 10-70 mg/L ammonia	0.54 mg/L L-glutamine 0.07 mg/L ammonia							AK00111	229 €
L-Lactic Acid, UV Method	50 tests of each	0.30-300 mg/L	0.30 mg/L							AK00131	229 €
D-/L-Lactic Acid, UV Method	50 tests of each	0.30-300 mg/L	0.30 mg/L							AK00141	339 €
D-Malic Acid, UV Method	100 tests	0.25-400 mg/L	0.26 mg/L							AK00021	229 €
L-Malic Acid, UV Method	58 tests	0.25-300 mg/L	0.25 mg/L							AK00011	229 €
L-Malic Acid, Colorimetric Method	5x10 tests	8-800 mg/L	8 mg/L							AK00191	229 €
Sucrose/D-Fructose/D-Glucose, UV Method	100 tests of each	20-800 mg/L	1.40 mg/L							AK00201	229 €
Sulfite, UV Method	30 tests	0.25-300 mg/L	0.25 mg/L							AK00071	229 €
Urea/Ammonia, UV Method	50 tests each	1.5-140 mg/L urea 10-70 mg/L ammonia	0.13 mg/L urea 0.07 mg/L ammonia							AK00101	229 €



**analytical enzymes**

**ANALYTICAL PRODUCTS**

# ANALYTICAL ENZYMES

Enzyme	EC	Catalogue No	Pack size	Price
Acetyl-CoA synthetase	6.2.1.1	AE00081	250 U	189 €
D-Alanine aminotransferase	2.6.1.21	AE00141	2500 U	189 €
Alcohol dehydrogenase	1.1.1.1	AE00131	1000 U	189 €
Aldehyde reductase YqhD	1.1.1.21	AE00021	2.0 mg	189 €
Arginase	3.5.3.1	AE00211	1950 U	189 €
Aspartate aminotransferase	2.6.1.1	AE00061	5000 U	189 €
Citrate synthase	2.3.3.1	AE00041	2500 U	189 €
Diaphorase	1.8.1.4	AE00231	1000 U	189 €
Glucokinase	2.7.1.2	AE00171	1400 U	189 €
Glucose-6-phosphate dehydrogenase , NADP <sup>+</sup> dependent	1.1.1.49	AE00111	5000 U	189 €
Glucose-6-phosphate dehydrogenase , NAD <sup>+</sup> dependent	1.1.1.49	AE00161	5000 U	189 €
Glucose-6-phosphate isomerase	5.3.1.9	AE00101	5000 U	189 €
Glutamate dehydrogenase	1.4.1.4	AE00051	3300 U	189 €
Glutaminase	3.5.1.2	AE00071	2500 U	189 €
Glutathione reductase	1.8.1.7	AE00221	500 U	189 €
Invertase	3.2.1.26	AE00241	100 kU	189 €
Lactaldehyde dehydrogenase	1.2.1.22	AE00031	4.0 mg	159 €
D-Lactate dehydrogenase	1.1.1.28	AE00121	22 kU	189 €
D-Malate dehydrogenase	1.1.1.83	AE00151	200 U	189 €
L-Malate dehydrogenase	1.1.1.37	AE00091	50 kU	189 €
NADH peroxidase	1.11.1.1	AE00201	500 U	189 €
Sulfite oxidase molybdenum centre domain	1.8.3.1	AE00011	2.25 U	189 €
Uronate dehydrogenase	1.1.1.203	AE00191	24 kU	219 €

# TERMS & CONDITIONS

Thank you for exploring our product catalogue for life science research.

We're thrilled to provide you with an extensive range of innovative solutions designed to deliver superior performance across molecular biology, molecular services, glycobiology, and analytical research.

To ensure a smooth experience, we've included a QR code for quick access to our terms and conditions. Here, you'll find essential details on product usage, safety guidelines, and shipping conditions to help you handle and use our products confidently and effectively.

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Customer Service Team  
+351 21 364 3514

[www.nzytech.com](http://www.nzytech.com)  
[info@nzytech.com](mailto:info@nzytech.com)