



AMPIGENE® PCR Solutions

Comprehensive PCR Solutions



Your distributor in Switzerland

LubioScience GmbH
Baumackerstrasse 24
8050 Zürich
+41 (0)41 417 02 80

info@lubio.ch
www.lubio.ch

Advanced PCR Technology Built on a History of Innovation

Established in 1976, Enzo focuses on developing innovative products and services for improving human healthcare through basic research, drug development, and patient care. Enzo remains at the forefront of target amplification technologies critical in the detection of infectious agents, cancer markers, and genotyping, which opened the door for many of the well-known molecular diagnostics assays in use today.

Enzo's AMPIPROBE® platform and quality critical reagents enabled rapid response to the SARS-CoV-2 pandemic. We used our expertise to expand our AMPIPROBE® portfolio with additional critical targets. All our AMPIPROBE® products use our innovative AMPIGENE® technology.

Advanced PCR Technology

AMPIGENE® PCR products use the latest polymerase technology and buffer chemistry to improve PCR performance.

- Suitable for unprocessed sample
- Custom and bulk options available

Advanced AMPIGENE® PCR Solutions Workflow From Sample Extraction to Analysis

EXTRACTION



AMPIXTRACT® Nucleic Acid Extraction Kits

Product Name	Product #
Viral & Pathogen Nucleic Acid Extraction Kit	ENZ-GEN249
General Tissue Section DNA Isolation Kit	ENZ-GEN500
Paraffin Tissue Section DNA Isolation Kit	ENZ-GEN501
Urine DNA Isolation Kit	ENZ-GEN502
Blood and Cultured Cell DNA Extraction Kit	ENZ-GEN503
DNA Isolation Kit for Plasma/Serum	ENZ-45018

AMPLIFICATION



AMPIGENE® Polymerase and Mixes

Product Name	Product #
Taq DNA Polymerase	ENZ-PRT100
Taq Mix	ENZ-NUC100
Hot Start Taq DNA Polymerase	ENZ-NUC123
Hot Start Taq Mix	ENZ-NUC125
High Fidelity Polymerase	ENZ-NUC130
High Fidelity Mix	ENZ-NUC131
High Fidelity Red Mix	ENZ-NUC132
Hot Start High Fidelity Polymerase	ENZ-NUC133
Hot Start High Fidelity Mix	ENZ-NUC134
Hot Start High Fidelity Red Mix	ENZ-NUC135
qPCR Green Mix	ENZ-NUC103/4
qPCR Probe Mix	ENZ-NUC105/6/7
qPCR 1-Step Green Kit	ENZ-NUC108/9
qPCR 1-Step Probe Mix	ENZ-NUC110/11/12

DETECTION



AMPIGENE® Ladders and CYGREEN® Dye

Product Name	Product #
CYGREEN® Nucleic Acid Dye	ENZ-GEN105
DNA Ladder 100 - 1,500 bp	ENZ-GEN101
DNA Ladder 50 - 1,500 bp	ENZ-GEN102
DNA Ladder 250 - 10,000 bp	ENZ-GEN103
DNA Ladder 100 - 10,000 bp	ENZ-GEN104

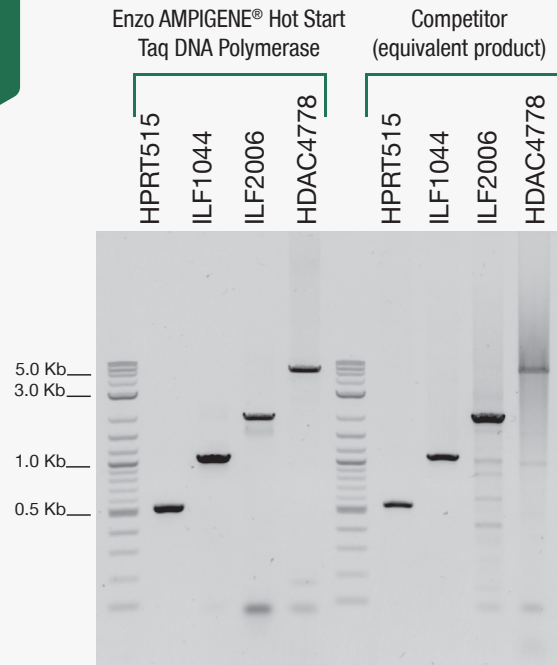
AMPIGENE® Hot Start *Taq* DNA Polymerase

AMPIGENE® Hot Start *Taq* DNA Polymerase and *Taq* Mix (ENZ-NUC123 & ENZ-NUC125) use the latest polymerase technology and buffer chemistry to improve PCR performance for difficult template targets. Our enzyme and buffer system allow for superior amplification from GC and AT-rich sequences.

- Ultra-sensitive and reliable technology
- Convenient ready-to-use 2X mix option (ENZ-NUC125)
- Excellent for low copy number template detection
- High performance with complex templates such as GC and AT-rich sequences and mammalian genomic DNA

*Enhanced Speed,
Yield, and Sensitivity.*

STRONG SIGNAL PROVIDES CLEAR RESULTS



Performance of AMPIGENE® Hot Start *Taq* DNA Polymerase (ENZ-NUC123) vs. Competitor. Human Genomic DNA (5ng) template was targeted with four separate primer sets in 20µl PCR volume.

ORDERING INFORMATION

Product Name	Sizes	Product #
AMPIGENE® <i>Taq</i> DNA Polymerase	500U	ENZ-PRT100
AMPIGENE® <i>Taq</i> Mix	40, 200, 100 rxn	ENZ-NUC100
AMPIGENE® Hot Start <i>Taq</i> DNA Polymerase	200U, 500U	ENZ-NUC123
AMPIGENE® Hot Start <i>Taq</i> Mix	200, 1000 rxn	ENZ-NUC125
AMPIGENE® High Fidelity Polymerase	100U, 500U	ENZ-NUC130
AMPIGENE® High Fidelity Mix	50 rxn	ENZ-NUC131
AMPIGENE® High Fidelity Red Mix	50 rxn	ENZ-NUC132
AMPIGENE® Hot Start High Fidelity Polymerase	100U, 500U	ENZ-NUC133
AMPIGENE® Hot Start High Fidelity Mix	50 rxn	ENZ-NUC134
AMPIGENE® Hot Start High Fidelity Red Mix	50 rxn	ENZ-NUC135
AMPIGENE® dNTP Mix	500 µL (10 mM)	ENZ-NUC102

AMPIGENE® qPCR/RT-PCR Solutions

AMPIGENE® qPCR Mixes use the latest developments in buffer chemistry to deliver high-performing dye-based or probe-based real-time PCR with added enhancers and stabilizers to improve reaction sensitivity and specificity. Available with different concentrations of the ROX reference dye (Hi ROX, Lo ROX, or No ROX).

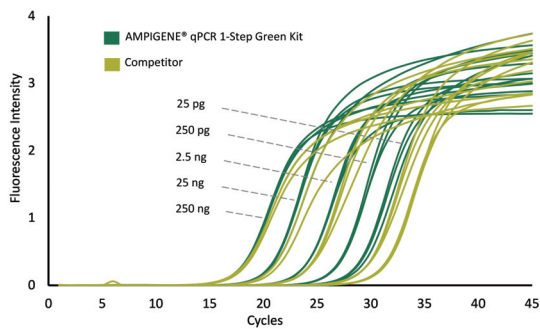
AMPIGENE® qPCR Green Mixes (ENZ-NUC108)

- Proprietary intercalating dye that does not interfere with PCR
- Antibody-mediated hot start PCR
- Compatible with all standard and fast cycling real-time PCR platforms

AMPIGENE® qPCR Probe Mixes (ENZ-NUC110)

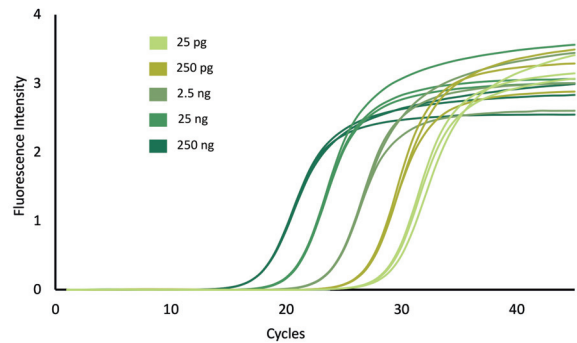
- Enhancers and stabilizers improve reaction sensitivity and specificity
- Designed for use on a wide range of probe technologies (Taqman®, Molecular Beacons®, and Scorpion® probe)

SUPERIOR PERFORMANCE AT LOWER RNA CONCENTRATION



Performance of AMPIGENE® qPCR 1-Step Green Kit vs. Competitor. Amplification of increasing concentration of mouse liver RNA (25pg to 250ng per 20µl reaction) with actg1 gene primers.

EFFICIENT AMPLIFICATION OF TOTAL RNA OVER A BROAD DYNAMIC RANGE



Performance of AMPIGENE® qPCR 1-Step Probe Kit. Amplification of increasing concentration of mouse liver RNA (10pg to 1µg per 20µl reaction) with actg1 gene primers.

ORDERING INFORMATION

Product Name	Sizes	Product #	
AMPIGENE® qPCR Green Mix	200 rxn	Lo-ROX	ENZ-NUC103
	1000 rxn	Lo-ROX	ENZ-NUC103
AMPIGENE® qPCR Green Mix	200 rxn	Hi-ROX	ENZ-NUC104
	1000 rxn	Hi-ROX	ENZ-NUC104
AMPIGENE® qPCR 1-Step Green Kit	200 rxn	Lo-ROX	ENZ-NUC108
	1000 rxn	Lo-ROX	ENZ-NUC108
AMPIGENE® qPCR 1-Step Green Kit	200 rxn	Hi-ROX	ENZ-NUC109
	1000 rxn	Hi-ROX	ENZ-NUC109

ORDERING INFORMATION

Product Name	Sizes	Product #	
AMPIGENE® PCR Probe Mix	200 rxn	Lo-ROX	ENZ-NUC105
	1000 rxn	Lo-ROX	ENZ-NUC105
AMPIGENE® PCR Probe Mix	200 rxn	Hi-ROX	ENZ-NUC106
	1000 rxn	Hi-ROX	ENZ-NUC106
AMPIGENE® PCR Probe Mix	200 rxn	No-ROX	ENZ-NUC107
	1000 rxn	No-ROX	ENZ-NUC107
AMPIGENE® qPCR 1-Step Probe Mix	200 rxn	Lo-ROX	ENZ-NUC110
	1000 rxn	Lo-ROX	ENZ-NUC110
AMPIGENE® qPCR 1-Step Probe Mix	200 rxn	Hi-ROX	ENZ-NUC111
	1000 rxn	Hi-ROX	ENZ-NUC111
AMPIGENE® qPCR 1-Step Probe Mix	200 rxn	No-ROX	ENZ-NUC112
	1000 rxn	No-ROX	ENZ-NUC112

AMPIGENE® RT-PCR 1-Step Kits (ENZ-KIT105)

Provide optimized and efficient cDNA synthesis and qPCR in a single tube

AMPIGENE® qPCR 1-Step Kits (Dye or Probe-based) use the latest developments in reverse transcriptase (RTase) technology and buffer chemistry for efficient cDNA synthesis and qPCR in a single tube. The modified Moloney Murine Leukemia Virus (MMLV) RTase is blended with an RNase inhibitor to prevent RNA degradation by contaminating RNase.

- Detect low copy number targets (1pg – 10ng total RNA or >0.01pg mRNA)
- Thermostable and extremely active MMLV RTase
- Convenient one-tube reaction

AMPIGENE® Isothermal DNA Amplification

Bst Polymerases and Mixes

AMPIGENE® *Bst* Polymerase (recombinant fragment of *G. stearothermophilus* DNA polymerase) is ideal for nucleic acid amplification methods taking place at a single incubation temperature — such as whole genome, multiple displacement, and isothermal amplifications, including loop-mediated isothermal amplification (LAMP).

- Operates over a broad temperature range
- Rapid and consistent results
- Flexible format – available with or without dye (for real-time detection with any thermocycler or combination heat source and detector)

ORDERING INFORMATION		
Product Name	Sizes	Product #
AMPIGENE® <i>Bst</i> Polymerase	1600U, 8000U	ENZ-NUC138
AMPIGENE® <i>Bst</i> Polymerase with Dye	1600U, 8000U	ENZ-NUC139
AMPIGENE® <i>Bst</i> Mix	100 rxn	ENZ-NUC140

AMPIGENE® Lyo-Probe Kits

AMPIGENE® Lyo-Probe is a lyophilizable RT-qPCR kit for the sensitive detection of RNA sequences. This formulated kit is ideal for assay development to provide enhanced functionality without loss of activity post lyophilization.

- Detection of low copy number targets
- Antibody-mediated hot start technology with improved tolerance to common PCR inhibitors
- Glycerol-free buffer

ORDERING INFORMATION		
Product Name	Sizes	Product #
AMPIGENE® Lyo-Probe Mix	200, 1000 rxn	ENZ-NUC141
AMPIGENE® Pre Lyo-Probe 1-Step Evaluation Kit	200 rxn	ENZ-NUC142
AMPIGENE® Lyo-Probe 1-Step Kit	2000 rxn	ENZ-NUC143

AMPIGENE® PCR Reagents

AMPIGENE® RNase Inhibitor

AMPIGENE® RNase Inhibitor works to inhibit RNase activity for sensitive applications such as RT-qPCR, cDNA synthesis, and RNA sequencing.

- Inhibits eukaryotic RNases, including RNase A, B, and C
- Ribonuclease- and phosphatase-free
- Stable up to 65°C for up to 30 minutes

AMPIGENE® Reverse Transcriptase

AMPIGENE® Reverse Transcriptase (RTase) is a modified MMLV RTase engineered for superior cDNA synthesis speed, specificity, and full-length cDNA product. This improved RTase is optimized for the following:

- High yields from as little as 20pg RNA
- Thermostable reverse transcriptase above 55°C
- Reduced RNase activity

ORDERING INFORMATION		
Product Name	Sizes	Product #
AMPIGENE® RNase Inhibitor	2500U	ENZ-NUC136
AMPIGENE® Reverse Transcriptase	10000U, 40000U	ENZ-NUC137

AMPIGENE® End-Point PCR

PCR is a routine procedure, but amplifying specific targets can still be challenging. Enzo has developed *Taq* DNA polymerase products to help you achieve successful results. We offer these in pre-optimized mixes or as standalone enzymes.

End-Point Polymerase

What PCR product would be best for your application?

	AMPIGENE® <i>Taq</i> DNA Polymerase (ENZ-PRT100)	AMPIGENE® Hot Start <i>Taq</i> DNA Polymerase (ENZ-NUC123)	AMPIGENE® High Fidelity Polymerase (ENZ-NUC130)	AMPIGENE® Hot Start High Fidelity Polymerase (ENZ-NUC133)
APPLICATION				
Standard PCR	•	•		
Long PCR			•	•
High-throughput		•		•
Multiplex PCR		•		•
High fidelity PCR			•	•
PCR from solid tissue	•	•		
GC-rich templates		•	•	
Genotyping		•		
Bisulfite PCR		•		
Methylated DNA	•	•	•	•
TA cloning	•	•		
Blunt end cloning			•	•
Crude sample PCR		•		
Site-directed mutagenesis			•	•
NGS			•	•
PROPERTIES				
Amplicon length	<6 kb	<6 kb	<20 kb	<20 kb
Fidelity vs. <i>Taq</i>	1x	1x	100x	100x
Prevents primer dimers		•		•
Processivity		17 nuc/sec	30-100 nuc/sec	30-100 nuc/sec
Amplification of GC and AT-rich templates to over 17.5kb			•	•
FORMAT OPTIONS				
Loading dye added			•	•
Ready mix	•	•	•	•

RELATED PRODUCTS			
Product Name	Sizes	Product #	Product Info
gDNA Removal Kit	50 rxn 250 rxn	ENZ-KIT136	Rapid removal of contaminating gDNA from RNA preps for low-copy transcripts or small samples
PCR Decontamination Kit	100 rxn	ENZ-KIT137	Removal of contaminating DNA and salts in PCR master mixes without reduction in PCR sensitivity
PCR & Gel Clean-up Kit	20 Tests 50 Tests 200 Tests	ENZ-GEN100	For the Purification of PCR products, DNA extraction from agarose gels and removal of nucleotides, primers, enzymes, mineral oil, detergents, or dyes
AMPIGENE® DNA Ladder 100-1,500 bp	100 Lanes	ENZ-GEN101	Includes sample loading buffer
AMPIGENE® DNA Ladder 50 -1,500 bp	100 Lanes	ENZ-GEN102	Includes sample loading buffer
AMPIGENE® DNA Ladder 250 -10,000 bp	100 Lanes	ENZ-GEN103	Includes sample loading buffer
CYGREEN® Nucleic Acid Dye	100 µL	ENZ-GEN105	Concentration: 10,000x, Formulation: Solution in DMSO, Excitation maximum: 489nm, Emission maximum: 515 nm, Purity: >93% (HPLC)



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