

OEM Enzymes

Manufacturing & Certification

DNA Polymerases

RNA Polymerases & RT

Modifying Enzymes

Ligases

PCR Master Mixes

RT-PCR Master Mixes

Additional OEM Capabilities

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 OEM by QIAGEN

High-quality enzymes optimized for your needs  
Bulk enzyme manufacturing

# Bulk enzyme production

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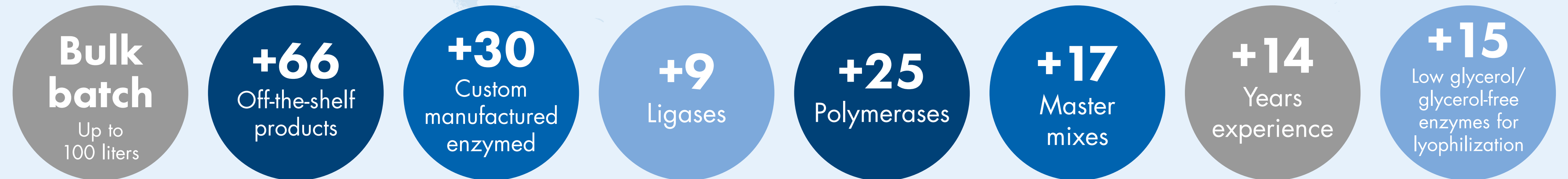
Ligases

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Manufacturing

Certification

REACH

OEM Enzymes

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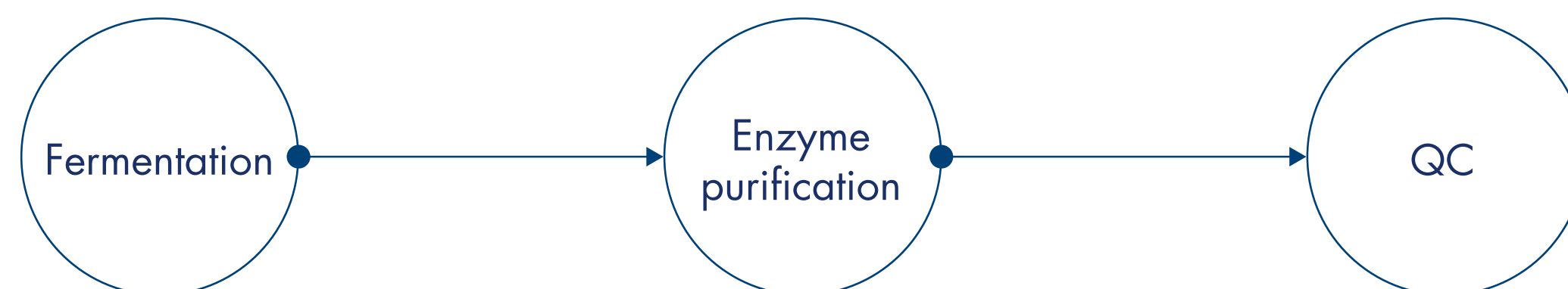
RT-PCR Master Mixes

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## Certification

- **cGMP/QSR**
- **ISO certified**
  - 9001:2015
  - 13485:2016
  - 14971:2019



Manufacturing

Certification

REACH

## QIAGEN is REACH compliant

We work tirelessly to ensure the supply chain security for our OEM partners.



REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) aims to regulate and limit the usage and disposal of "Substances of Very High Concern" (SVHC), for example common detergents such as Triton or Nonidet, thus affecting providers of molecular biology assays.

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# DNA Polymerases

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Enzyme category	DNA Polymerase			
Product name	VeraSeq 2.0 High Fidelity DNA Polymerase	VeraSeq Ultra DNA Polymerase	Phoenix Hot-Start Taq DNA Polymerase	Taq DSC 2.0 DNA Polymerase
<b>Description</b>	For maximized DNA amplification speed, accuracy, and length	To read and use Uracil residue with maximized speed and accuracy	For enhanced specificity, sensitivity, and yield	A nucleic acid based hot start polymerase with instant activation
<b>Features</b>	<ul style="list-style-type: none"> <li>• 1kB in 15 secs.</li> <li>• Fidelity 50x higher than Taq</li> <li>• Blunt end</li> <li>• 1.5-3.0mM Mg<sup>2+</sup> concentrations</li> </ul>	<ul style="list-style-type: none"> <li>• 1kB in 15 secs.</li> <li>• Fidelity 25x higher than Taq</li> <li>• Blunt end</li> <li>• 1.5-3.0mM Mg<sup>2+</sup> concentrations</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced nonspecific amplification and primer-dimer formation</li> <li>• Room temperature reaction set up</li> </ul>	<ul style="list-style-type: none"> <li>• Thermostable, processive DNA polymerase</li> <li>• No 3' to 5' proofreading</li> <li>• Hot start</li> </ul>
<b>Applications</b>	Routine HiFi amplification, NGS library amplification and synthetic biology	Bisulfite-Seq, contamination prevention, long-range	Routine PCR, qPCR, multiplexing, RT-PCR	Routine PCR, qPCR, multiplexing, RT-PCR
<b>Exonuclease activity</b>	3'→5'	3'→5'	5'→3'	5'→3'
<b>Hot-start</b>	✓	✓	Antibody based	Nucleic acid based
<b>Thermostable</b>	Ultra-thermostable	Ultra-thermostable	✓	✓
<b>Proof reading</b>	✓	✓		
<b>High fidelity</b>	✓	✓		
<b>Long range</b>	✓	✓		
<b>Lyo-ready, glycerol-free</b>	✓	✓	✓	

Polymerases 1

Polymerases 2

Polymerases 3

## DNA Polymerases (continued)

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Enzyme category	DNA Polymerase			
Product name	Taq-B DNA Polymerase	TaqIT DNA Polymerase	Phi29 DNA Polymerase	BstX DNA Polymerase
<b>Description</b>	Wild-type Taq DNA polymerase	Exonuclease deficient derivative of Taq DNA polymerase	Highly processive DNA polymerase, for accuracy and speed	Thermostable DNA polymerase for better isothermal amplification
<b>Features</b>	<ul style="list-style-type: none"> <li>5' to 3' exonuclease activity</li> <li>5' to 3' nick translation moiety No 3' to 5' proofreading</li> </ul>	<ul style="list-style-type: none"> <li>Slightly greater fidelity, inhibition resistance and thermostability than full length Taq</li> </ul>	<ul style="list-style-type: none"> <li>Strong strand displacement activity and processivity up to 70,000 base insertions per binding event</li> </ul>	<ul style="list-style-type: none"> <li>Strong strand displacement</li> <li>High salt and detergent tolerance</li> </ul>
<b>Applications</b>	Industry standard for routine PCR	Longer PCR amplification, genotyping, allows bypassing of DNA extraction and purification steps	Whole Genome Amplification (WGA), Rolling Circle Amplification (RCA), Multiple Displacement Amplification (MDA)	LAMP, strand-displacement Synthesis ideal for isothermal amplification
<b>Exonuclease activity</b>	5'→3'		3'→5'	
<b>Hot-start</b>		✓		
<b>Thermostable</b>	✓	High thermostability		✓
<b>Proof reading</b>			✓	
<b>High Fidelity</b>			✓	
<b>Long range</b>		✓	✓	✓
<b>Lyo-ready, glycerol-free</b>	✓	✓	✓	✓

Polymerases 1

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## Protein binders and more

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Enzyme category	Binding Protein		Other
<b>Product name</b>	<b>T4 gene 32 Protein</b>	<b>Uracil DNA Glycosylase</b>	<b>10x Uracil Cleavage System</b>
<b>Description</b>	For ssDNA stabilization and increased processivity	Uracil DNA glycosylase for removing Uracil from DNA	Uracil DNA glycosylase (UDG) and Endonuclease VIII.
<b>Features</b>	<ul style="list-style-type: none"> <li>A single-stranded DNA binding protein</li> </ul>	<ul style="list-style-type: none"> <li>Catalyzes the hydrolysis of the N-glycosylic bond between the uracil and sugar</li> </ul>	<ul style="list-style-type: none"> <li>Removal of uracil, then cleavage of DNA backbone</li> </ul>
<b>Applications</b>	DNA sequencing in secondary-structure rich regions and PCR amplification	Creating abasic sites, containing single or double-stranded DNA	Cloning, removing contaminating PCR products
<b>Exonuclease activity</b>			✓
<b>Lyo-ready, glycerol-free</b>	✓	✓	

Polymerases 1

Polymerases 2

Polymerases 3

# RNA Polymerases

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Enzyme category	RNA Polymerase	
Product name	<b>Poly(A) Polymerase</b>	<b>T7 RNA Polymerase</b>
Description	Catalyzes addition of AMP from ATP to the 3' hydroxyl of RNA	Synthesizes RNA in 5'→3' direction of DNA template
Features	<ul style="list-style-type: none"> <li>• Template independent catalysis of the addition of AMP from ATP to the 3' hydroxyl of RNA</li> </ul>	<ul style="list-style-type: none"> <li>• DNA-dependent RNA polymerase with high specificity to T7 promoter</li> </ul>
Applications	Addition of poly(A) tail to RNA, 3'-end RNA labeling	RNA synthesis from DNA template, RNA probe preparation, applications in mRNA therapeutics

RNA Polymerase

Reverse Transcriptase



# Reverse Transcription RNA

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Enzyme category	Reverse Transcriptase				
Product name	Omniscript RT	Sensiscript	EnzScript (MMLV Reverse Transcriptase RNase, H-)	RNase inhibitor	RNase H
<b>Description</b>	For viral RNA preparation with carrier use	For highly sensitive applications with very small amounts of RNA (<50 ng)	RNA-dependent DNA polymerase	Porcine-derived non-competitive RNase A, B, C inhibitor	Cleaves RNA strand of DNA-RNA hybrid
<b>Features</b>	<ul style="list-style-type: none"> <li>Efficient and sensitive RT with high cDNA yields from small amounts of RNA</li> </ul>	<ul style="list-style-type: none"> <li>Efficient and sensitive RT</li> <li>For use with less than 50 ng of RNA</li> </ul>	<ul style="list-style-type: none"> <li>No RNase H activity</li> <li>cDNA transcripts &gt; 5kb</li> <li>Reaction temperature, up to 50°C</li> </ul>	<ul style="list-style-type: none"> <li>Does not inhibit RNase H activity</li> </ul>	<ul style="list-style-type: none"> <li>Degrades the RNA strand of RNA-DNA hybrid</li> <li>Does not degrade single or double stranded RNA</li> </ul>
<b>Applications</b>	cDNA synthesis, one-step RT-PCR	Single-cell RT-PCR, small biopsies analysis, cDNA synthesis, one-step RT-PCR	cDNA synthesis, one-step RT-PCR, RNAseq	cDNA synthesis, one-step RT-PCR	Removes mRNA during second strand cDNA synthesis
<b>Long range</b>			✓		
<b>lyo-ready, glycerol-free, lyophilized</b>			✓	✓	✓

RNA Polymerase

Reverse Transcriptase

# DNA modifying enzymes

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Enzyme category	DNA Modifying Enzymes					
Product name	DNA Polymerase I	Klenow Fragment	Klenow (3'-5'exo-) Fragment	Mako DNA Polymerase	T4 DNA Polymerase	T7 DNA Polymerase
<b>Description</b>	Mesophilic DNA polymerase	Truncated product of <i>E. coli</i> DNA polymerase I	A derivative of <i>E. coli</i> DNA polymerase I	Exonuclease-deficient polymerase	Extension of a primed DNA template in 5'→3' direction	Highly processive DNA polymerase
<b>Features</b>	<ul style="list-style-type: none"> <li>5'→3' DNA synthesis</li> </ul>	<ul style="list-style-type: none"> <li>5'→3' polymerase</li> </ul>	<ul style="list-style-type: none"> <li>5'→3' polymerase</li> </ul>	<ul style="list-style-type: none"> <li>No strand displacement activity</li> </ul>	<ul style="list-style-type: none"> <li>Polishing 5' and 3' of ends</li> <li>No strand displacement</li> </ul>	<ul style="list-style-type: none"> <li>Exceptionally high synthesis and replication fidelity rate</li> </ul>
<b>Applications</b>	DNA labeling by nick translation, cDNA synthesis	DNA blunting by fill-in 5' overhang, second strand cDNA synthesis, sequencing and site-specific mutagenesis	A-tailing for NextGen sequencing, strand displacement amplification, DNA labeling	Sequencing	Double-stranded DNA labeling	Highly processive, site-specific mutagenesis, second strand cDNA synthesis
<b>Exonuclease activity</b>	both 3'→5' and 5'→3' exonuclease activity	3'→5' exonuclease activity, no 5'→3' exonuclease activity	Deficient in proofreading (3'→5') and nick-translation (5'→3') nuclease activities	No 3'→5' or 5'→3' exonuclease activity	Powerful 3'→5' exonuclease activity, no 5'→3' exonuclease activity	3'→5' exonuclease activity
<b>Lyo-ready, glycerol-free</b>	✓	✓	✓		✓	

Modifications 1

Modifications 2

Modifications 3 NGS

Modifications 4

## DNA modifying enzymes (continued)

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Enzyme category	DNA Modifying Enzymes					
Product name	T4 Polynucleotide Kinase	Terminal Deoxynucleotidyl Transferase	Thermostable Pyrophosphatase	End Repair Mix	<i>E. coli</i> fpg	Endonuclease VIII
<b>Description</b>	5' phosphorylation of DNA or RNA, removes 3' phosphoryl groups	A template-independent DNA polymerase	Catalyzes the hydrolysis of inorganic pyrophosphate to produce orthophosphate	Combination of T4 DNA Polymerase and T4 PNK	Participates in the base-excision pathway of DNA repair enzymes	DNA repair protein, removes modified pyrimidines
<b>Features</b>	<ul style="list-style-type: none"> <li>Exhibits 3'-phosphatase and 2', 3' cyclic phosphodiesterase activities</li> </ul>	<ul style="list-style-type: none"> <li>Catalyzes deoxynucleotides addition to the 3' hydroxyl terminus of single or double stranded DNA</li> </ul>	<ul style="list-style-type: none"> <li>Eliminates pyrophosphate during amplification, thus minimizing inhibition</li> <li>Functional under PCR conditions</li> </ul>	<ul style="list-style-type: none"> <li>Converts DNA with 5'- and/or 3'-protruding ends to 5'-phosphorylated, blunt-ended DNA. (in high/low concentrations)</li> </ul>	<ul style="list-style-type: none"> <li>Acts both as a N-glycosylase and an AP-lyase</li> </ul>	<ul style="list-style-type: none"> <li>Possesses both DNA glycosylase and apurinic/aprimidinic (AP) lyase activities</li> </ul>
<b>Applications</b>	Phosphorylation of 5' ends of DNA prior to ligation	Homopolymeric tailing to the 3'-OH, TUNEL assay, 5'-RACE, labeling of 3'-end	In-vitro synthesis	Generate blunt-ended DNA for cloning or NGS library preparation	Excises damaged purines from duplex DNA, cleaves AP sites leaving 3' and 5' phosphates	Excises damaged pyrimidines from duplex DNA, cleaves AP sites leaving 3' and 5' phosphates
<b>Thermostable</b>			✓			
<b>Lyo-ready, glycerol-free</b>	✓				✓	
<b>NGS applications</b>					✓	

Modifications 1

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Modifications 3 NGS

Modifications 4

# NGS library preparation

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Enzyme category	NGS Library Prep	
<b>Product name</b>	<b>5X WGS Fragmentation Mix</b>	<b>5X ER/A-Tailing Enzyme Mix</b>
<b>Description</b>	A single tube solution for library construction on Illumina platforms	A NGS library preparation module
<b>Features</b>	<ul style="list-style-type: none"> <li>Fragmentation, end-repair and dA-tailing in a single reaction step</li> <li>Ligation optional in the same tube</li> <li>Profiles similar to mechanical shearing</li> <li>Modifiable fragment size</li> <li>Input DNA from 1 ng to 1 ug, with various GC contents</li> </ul>	<ul style="list-style-type: none"> <li>End-repair and dA-tailing in a single reaction step</li> <li>Input DNA from 250 pg to 1 ug</li> <li>Compatible with EDTA</li> <li>Total time under 3 hours/1 hour hands-on time</li> <li>Even coverage across genomic regions</li> <li>PCR free library prep</li> </ul>
<b>NGS Illumina library construction</b>	From intact DNA	From fragmented DNA
<b>Lyo-ready, glycerol-free</b>		Feasible
<b>NGS applications</b>	✓	✓

Modifications 1

Modifications 2

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Modifications 4

# Additional modifications

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## Product name

## Restriction enzymes

## Exonucleases

### Description

Example Products:  
BamHI, BglII, DpnI, EagI, EcoRI, EcoRV, HaeIII, HindIII, NcoI, NotI, PstI, PvuII, Sall, SphI, XbaI, XhoI

Example Products in the exonuclease family are:  
Exonuclease I, III and Lambda exonuclease

### Features

- Cleaves double stranded DNA within target recognition sites

- Exonuclease I cleaves single-stranded DNA in the 3'→5' direction
- Exonuclease III acts in 3'-5' direction on double stranded DNA substrate
- Lambda Exonuclease is a highly processive 5'→3' double stranded exonuclease

### Applications

Endonuclease application:  
cloning and restriction site mapping

Removal of chromosomal DNA to clean up plasmid preps, generation of ssDNA from linear dsDNA, removal of oligonucleotide primers post PCR

Modifications 1

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# Ligases

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Enzyme category	Ligase				
Product name	WGS Ligase	T3 DNA Ligase	T7 DNA Ligase	<i>E. coli</i> DNA Ligase	T4 DNA Ligase
<b>Description</b>	Optimized for ligation following WGS Fragmentation	ATP-dependent dsDNA ligase. Catalyzes the formation of a phosphodiester bond between a 5' phosphate and a 3' hydroxyl termini in duplex DNA	Catalyzes the formation of a phosphodiester bond between a 5' phosphate and a 3' hydroxyl termini in duplex DNA	An NAD <sup>+</sup> -dependent enzyme	Catalyzes the formation of phosphodiester bond between the terminal 5' phosphate and 3' hydroxyl groups of duplex DNA or RNA
<b>Features</b>	<ul style="list-style-type: none"> <li>Joins blunt end and cohesive ends and</li> <li>Repairs single stranded nicks in duplex RNA, RNA, or DNA-RNA hybrid</li> </ul>	<ul style="list-style-type: none"> <li>Joins blunt end and cohesive ends and repairs single stranded nicks in duplex DNA</li> </ul>		<ul style="list-style-type: none"> <li>Ligates DNA at nicks and cohesive termini</li> </ul>	<ul style="list-style-type: none"> <li>Joins blunt end and cohesive ends and</li> <li>Seals nicks in duplex DNA, RNA or DNA-RNA hybrid</li> </ul>
<b>Applications</b>	NGS library construction, cloning	dsDNA ligase that works in high ionic strength up to 1.0 M NaCl	High cohesive end ligation efficiency	cDNA cloning by replacement synthesis	Restriction cloning, TA cloning, adapter ligation
<b>Lyophilized, glycerol-free, lyophilized</b>	Feasible				✓

Ligases 1

Ligases 2

## Ligases (continued)

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Enzyme category	Ligase			
Product name	Taq DNA Ligase	T4 RNA Ligase 1	T4 RNA Ligase 2	T4 RNA Ligase 2 Truncated
Description	Thermostable DNA ligase	Ligates single-stranded RNA and single stranded DNA molecules	Ligates nicks on double stranded DNA	Ligates pre-adenylated 5' phosphate DNA or RNA and 3' hydroxyl of RNA
Features	<ul style="list-style-type: none"> <li>Seals nicks and discriminates against mismatch ligation</li> </ul>	<ul style="list-style-type: none"> <li>Catalyzes ATP-dependent ligation of single-stranded nucleic acids</li> </ul>	<ul style="list-style-type: none"> <li>Ligates from 3' OH of RNA to 5' phosphate of DNA in double stranded structures</li> </ul>	<ul style="list-style-type: none"> <li>Linker ligations with pre-adenylated 5' DNA to 3' hydroxyl RNA</li> </ul>
Applications	Ligase Chain Reaction and Ligase Detection Reaction, high temperature ligation	Single-stranded nucleic acid (RNA or DNA) ligation, labeling of 3'-termini of RNA	Nick ligation in dsRNA, Ligate the 3' OH of RNA to the 5' phosphate of DNA in a double stranded format	NGS RNA library construction (miRNA-Seq or directional mRNA-Seq)
Thermostable	✓			
High fidelity	✓			

Ligases 1

Ligases 2

# PCR Master Mixes

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Enzyme category	PCR Master Mixes			
Product name	QuantiNova Multiplex PCR Kit	QuantiNova Probe PCR Kit	QuantiTect Probe PCR Kit	QuantiTect Multiplex PCR Kit
<b>Description</b>	Ultrafast multiplex, real-time PCR and two-step qRT-PCR using sequence-specific probes	Highly sensitive, specific, and ultrafast PCR mastermix for probe-based real-time PCR	Chemically inactivated hot-start PCR mastermix for real-time PCR using probe-based detection	Probe-based detection
<b>Features</b>	<ul style="list-style-type: none"> <li>Hot-start</li> <li>Sensitive detection of up to five targets in one tube</li> <li>Visual pipetting control</li> <li>Room temperature reaction set up</li> </ul>	<ul style="list-style-type: none"> <li>Hot-start</li> <li>Detection of rare targets down to one copy</li> <li>Visual pipetting control</li> <li>Room temperature reaction set up</li> </ul>	<ul style="list-style-type: none"> <li>Hot-start</li> <li>Very high PCR specificity</li> <li>dUTP for pretreatment with uracil-N-glycosylase (UNG)</li> </ul>	<ul style="list-style-type: none"> <li>Hot-start</li> <li>Very high PCR specificity</li> <li>Multiplex capability up to five targets</li> <li>dUTP for pretreatment with uracil-N-glycosylase (UNG)</li> </ul>
<b>Applications</b>	Multiplex gene expression analysis of cDNA or gDNA targets on any real-time cyclers	Probe-based gene expression analysis of cDNA targets and quantitative gDNA analysis on any real-time cyclers	Real-time PCR of cDNA or gDNA targets with duplex capability	Multiplex real-time PCR
<b>Hot-start</b>	Antibody mediated	Antibody mediated	Chemical modification	Chemical modification
<b>Real-time PCR</b>	✓	✓	✓	✓
<b>Multiplex PCR</b>	✓	✓	✓	✓

PCR 1

PCR 2

UCP PCR



## PCR Master Mixes (continued)

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Enzyme category	PCR Master Mixes		
Product name	UltraRun LongRange PCR Kit	AllTaq Master Mix Kit	HiFi PCR Master Mix
<b>Description</b>	Accurate ultra-long-range PCR	Sensitive and specific Hot-start PCR	High fidelity PCR amplification of NGS libraries
<b>Features</b>	<ul style="list-style-type: none"> <li>Up to 40 kb</li> <li>Hot-start</li> <li>Low error rates, ensured by high-fidelity enzyme</li> </ul>	<ul style="list-style-type: none"> <li>Room temperature stability</li> <li>One protocol for all targets</li> <li>GC-rich or up to 9 kb</li> <li>Duplex PCR</li> <li>Visual pipetting control</li> <li>Gel tracking dyes</li> </ul>	<ul style="list-style-type: none"> <li>Highly efficient and low bias PCR master mix</li> <li>Uniform coverage across challenging AT- and GC-rich regions</li> <li>Input DNA <math>\geq 250</math> pg</li> </ul>
<b>Applications</b>	Cloning, sequencing, standard PCR	PCR, genotyping and genetic analysis with multiple primer pairs or wide range of amplicon sizes	DNA or RNA seq library amplification, including single cell RNAseq
<b>Hot-start</b>	Antibody mediated	Antibody mediated	Antibody mediated
<b>End-point PCR</b>	✓	✓	✓
<b>Multiplex PCR</b>	✓	✓	
<b>Long range</b>	✓		
<b>Contains HiFi in enzyme blend</b>			✓

PCR 1

PCR 2

UCP PCR

# UltraClean<sup>®</sup> Production (UCP) PCR Master Mixes

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Enzyme category	PCR Master Mixes		
Product name	UCP Probe PCR Kit	UCP Multiplex PCR Kit	UCP HiFidelity PCR Kit
<b>Description</b>	Probe-based, UCP PCR	UCP Nucleic acid depleted PCR	High fidelity, hot-start UCP PCR
<b>Features</b>	<ul style="list-style-type: none"> <li>Nucleic acid-depleted reagents, no background from residual DNA.</li> <li>Inhibitor robustness</li> <li>Visual pipetting control</li> <li>Room-temperature reaction setup</li> </ul>	<ul style="list-style-type: none"> <li>No background from residual DNA</li> <li>Inhibitor robustness</li> <li>Wide GC range</li> <li>Visual pipetting control</li> <li>Gel tracking dyes</li> <li>Room temperature reaction setup</li> </ul>	<ul style="list-style-type: none"> <li>Blunt end products</li> <li>Up to 10 kb</li> <li>Inhibitor robustness for direct PCR from blood samples</li> <li>Fidelity 70 times higher than Taq</li> <li>Room temperature reaction setup</li> </ul>
<b>Applications</b>	Microbial testing, microbiome/metagenome workflows, NGS library preparation	Microbial testing, quality control, genotyping and genetic testing, microbiome/metagenome analysis and sequencing, 16S/18S amplifications	
<b>Hot-start</b>	Antibody mediated	Antibody mediated	Antibody mediated
<b>Real-time PCR</b>	✓		
<b>End-point PCR</b>		✓	✓
<b>Multiplex PCR</b>	✓	✓	✓
<b>Ultra Clean Production (UCP)</b>	✓	✓	✓
<b>Room temperature reaction setup</b>	✓	✓	✓
<b>Inhibitor robustness</b>	✓	✓	✓
<b>Contains HiFi in enzyme blend</b>			✓

PCR 1

PCR 2

UCP PCR

# RT-PCR Master Mixes

OEM Enzymes

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DNA Polymerases

RNA Polymerases & RT

Modifying Enzymes

Ligases

PCR Master Mixes

RT-PCR Master Mixes

Additional OEM Capabilities

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Enzyme category	One-step RT-PCR			
Product name	QuantiNova Pathogene + IC Kit	QIAGEN One Step Ahead RT-PCR kit	QuantiNova Probe RT-PCR Kit	QuantiNova Multiplex RT-PCR Kit
<b>Description</b>	Real-time multiplex RT-PCR kit for probe-based pathogen detection	For highly sensitive and specific RT-PCR using any RNA template	For one-step qRT-PCR using sequence-specific probes for gene expression analysis	Quantification of up to five RNA targets in a single tube by multiplex real-time RT-PCR
<b>Features</b>	<ul style="list-style-type: none"> <li>• Ultrafast, simultaneous detection of pathogen DNA and RNA</li> <li>• Room temperature reaction setup</li> <li>• Visual pipetting control</li> </ul>	<ul style="list-style-type: none"> <li>• One-step RT-PCR</li> <li>• Room-temperature setup</li> <li>• Duplex capability</li> </ul>	<ul style="list-style-type: none"> <li>• Internal control for positive in-process verification</li> <li>• Duplex capability</li> <li>• Room temperature reaction setup</li> <li>• Visual pipetting control</li> </ul>	<ul style="list-style-type: none"> <li>• Amplification from a single cell or up to 800 ng template</li> <li>• Internal control RNA for verification</li> <li>• Room temperature reaction setup</li> <li>• Visual pipetting control</li> </ul>
<b>Applications</b>	4-plex RT-PCR for detection of both pathogen targets and internal control	RT-PCR applications for virus detection, gene expression analysis	Gene expression analysis of RNA targets on any real-time cyclers	
<b>Real-time PCR</b>	✓		✓	✓
<b>End-point PCR</b>		✓		
<b>Multiplex PCR</b>		✓		
<b>Room temperature reaction setup</b>	✓	✓	✓	✓
<b>Hot-start</b>	Antibody mediated hot-start Taq, inactivated RT	Antibody mediated hot-start Taq, inactivated RT	Antibody mediated hot-start Taq, inactivated RT	Antibody mediated hot-start Taq, inactivated RT

RT-PCR Master Mixes 1

RT-PCR Master Mixes 2

## RT-PCR Master Mixes (continued)

Enzyme category	One-step RT-PCR		
Product name	QuantiTect Probe RT-PCR Kit	QuantiTect Multiplex RT-PCR Kit	ZipScript™ One-Step RT-qPCR Kit
<b>Description</b>	For one-step RT-qPCR using sequence-specific probes for gene expression analysis	For RNA template using the SYBR® Green detection	A highly sensitive and reproducible RT-qPCR solution optimized for real-time PCR
<b>Features</b>	<ul style="list-style-type: none"> <li>• Sensitive detection of low-copy targets</li> <li>• Use of any sequence-specific probe on any real-time cycler</li> <li>• dUTP for pretreatment with uracil-N-glycosylase (UNG)</li> </ul>	<ul style="list-style-type: none"> <li>• Omniscript/ Sensiscript mix for cDNA synthesis</li> <li>• dUTP for pretreatment with uracil-N-glycosylase (UNG)</li> <li>• Up to five targets in one reaction</li> </ul>	<ul style="list-style-type: none"> <li>• The 25X enzyme mix is accompanied by a 2X reaction buffer</li> <li>• Capable of multiplexing up to five targets</li> <li>• Can be obtained lyophilized</li> </ul>
<b>Applications</b>	Real-time quantification of RNA targets	One-step real-time PCR (1-step RT-qPCR)	Gene expression for RNA template, 1-step RT-qPCR
<b>Real-time PCR</b>	✓	✓	✓
<b>Multiplex PCR</b>	✓	✓	✓
<b>Hot-start</b>	Chemical modification	Chemical modification	Antibody mediated

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RT-PCR Master Mixes 1

RT-PCR Master Mixes 2

# Additional OEM Capabilities

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## Formulation capabilities

- Adjusted concentration
- Lyophilized or in the buffer of your choice
- Bulk or aliquots in tubes
- Customized mixing
- Tailored labeling and packaging, flexible volumetric ordering

## Consulting service

- Implement tailored modifications and design
- Contract protein manufacturing
- Stability studies
- Custom mixes, buffer, and diluent support
- R&D prototyping of proteins and formulations for ease of evaluation

We can help you to pick the correct solution for your application



# OEM by QIAGEN

Allow us to be your trusted partner for accelerating your molecular assay development

- Confidentiality and trust
- Quality at scale
- Innovation combined with expertise
- Portfolio breadth



Nucleic acid purification



Enzymes



Oligonucleotides



Master mixes

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