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Choose exceptional sensitivity,
specificity, and yield

PCR enzymes, reverse transcriptases, and reagents

ThermoFisher
SCIENTIFIC

Choose a PCR enzyme that fits your application

We offer quality PCR enzymes and reagents with the consistency and performance you need

Choose the category that best fits your research application, then pick a product from the options described.

Standard PCR

Standard *Taq* DNA polymerase reagents provide reliable and robust amplification for general PCR applications.

- Invitrogen™ *Taq* DNA Polymerase—widely used for routine amplification and available as a native or recombinant enzyme; the recombinant form is also available as Invitrogen™ PCR SuperMix
- Applied Biosystems™ AmpliTaq™ DNA Polymerase—reliable and cost-effective, the Applied Biosystems™ AmpliTaq™ 360 Buffer Kit promotes the amplification of a variety of templates including GC-rich templates when using the 360 GC Enhancer

Hot-start PCR

Hot-start PCR reduces nonspecific amplification, increases the yield of target amplicon, and allows for convenient room temperature reaction setup.


- Invitrogen™ Platinum™ *Taq* DNA Polymerase—highly specific, antibody-mediated, hot-start DNA polymerase available as a stand-alone enzyme and in new convenient 2X master mix formats with options for direct gel loading of PCR products; 2X master mixes are provided with Invitrogen™ Platinum™ GC Enhancer for robust amplification of GC-rich targets
- Applied Biosystems™ AmpliTaq Gold™ DNA Polymerase—a chemically modified hot-start DNA polymerase available as an Applied Biosystems™ AmpliTaq Gold™ 360 Master Mix, which helps enable amplification of a full range of challenging targets

Along with these products, we also have enzyme choices for specialized applications such as fast PCR, long PCR, multiplexing, and GC-rich PCR. Find out more at thermofisher.com/pcrenzymes

High-fidelity/high-specificity PCR

High-fidelity is required for applications where sequence accuracy is crucial. All four high-fidelity enzymes listed below utilize Invitrogen™ Platinum™ antibody-mediated hot-start technology. The Invitrogen™ AccuPrime™ accessory protein further increases specificity.

- Invitrogen™ Platinum™ *Taq* DNA Polymerase, High Fidelity—a PCR enzyme blend with 6x higher fidelity than *Taq* that amplifies fragments up to 20 kb and is available as Invitrogen™ Platinum™ PCR SuperMix, High Fidelity
- Invitrogen™ AccuPrime™ *Taq* DNA Polymerase, High Fidelity—formulation with a proofreading enzyme for greater accuracy (9x higher than *Taq* DNA polymerase) and AccuPrime accessory proteins for improved specificity and yields through the prevention of mispriming during every PCR cycle
- Invitrogen™ Platinum™ *Pfx* DNA Polymerase—a highly processive and accurate enzyme (26x higher fidelity than *Taq* DNA polymerase) for high yields of PCR products up to 12 kb
- Invitrogen™ AccuPrime™ *Pfx* DNA Polymerase—a combination of Platinum™ *Pfx* DNA polymerase and AccuPrime accessory proteins for highest fidelity (26x *Taq*) and specificity, available as Invitrogen™ AccuPrime™ *Pfx* SuperMix



Choose which reverse transcriptase best fits your needs

First-strand cDNA synthesis kits

These kits offer superior reduced gene bias with higher yields of full-length cDNA for downstream RT-PCR and RT-qPCR applications.

- Invitrogen™ SuperScript™ IV First-Strand Synthesis System—a top choice for performance and flexibility for all RT-PCR applications, enabling reliable cDNA synthesis with increased inhibitor resistance and reaction speed
- Applied Biosystems™ High-Capacity cDNA Reverse Transcription Kit—a cost-effective and flexible format for routine cDNA synthesis

Master mix for real-time PCR

Minimize pipetting to reduce the risk of contamination while getting the most sensitive qPCR performance.

- Invitrogen™ SuperScript™ VILO™ Master Mix—convenient single-tube format designed to increase cDNA yields with excellent linearity across the broadest range of input RNA

Stand-alone reverse transcriptases

We offer a wide range of stand-alone reverse transcriptases to reliably and efficiently deliver high yields of full-length cDNA.

- Invitrogen™ SuperScript™ IV Reverse Transcriptase—a robust reverse transcriptase that enables high cDNA yields in the presence of reaction inhibitors, superior sensitivity with degraded RNA samples, and a fast reaction time of 10 minutes
- Invitrogen™ SuperScript™ III Reverse Transcriptase—engineered for higher thermostability (half-life of 220 minutes at 50°C) and reduced RNase H activity, enabling high yields of full-length cDNA
- Invitrogen™ MuLV Reverse Transcriptase—an efficient reverse transcriptase for a variety of templates, with a standard reaction temperature of 37°C

One-step RT-PCR system

The Invitrogen™ SuperScript™ III One-Step RT-PCR System with Platinum™ *Taq* DNA Polymerase offers the ability to achieve sensitive and reproducible endpoint detection and analysis of RNA, with first-strand cDNA synthesis and PCR in a convenient one-step formulation.

Find out more about all of our reverse transcription products at thermofisher.com/reverse-transcription

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Additional PCR products

We offer a complete menu of products that have been designed and optimized to deliver consistent and reliable results for any application, including quantitation, genotyping, and sequence analysis.



Thermal cyclers

Our engineers have been designing and manufacturing high-quality Applied Biosystems™ thermal cyclers since 1987. These instruments are renowned for their reliability, precision, and user-friendly interfaces. For a complete list of our thermal cycler product line, go to thermofisher.com/thermalcyclers

Custom oligos

Custom DNA oligos are made to your specifications, with rigorous quality controls and quick turnaround. For more information, go to thermofisher.com/oligos

Find out more at thermofisher.com/pcr



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PCR plastic consumables

Applied Biosystems™ MicroAmp™ plastics are optimized to provide superior temperature accuracy and uniformity for fast and efficient PCR amplification. Find out more about all of our plastic consumables at thermofisher.com/plastics

E-Gel precast agarose gels and imaging

A complete bufferless system for the analysis of your PCR fragments. For more information, go to thermofisher.com/egels

dNTPs

All of our dNTPs are available in ready-to-use concentrations and packaged either individually, in a set, or blended into a dNTP mix for convenience and flexibility. For more information, go to thermofisher.com/dntp



Need additional assistance?

Technical support specialists are available by phone and online to assist you in choosing the right products for your needs. For product support, go to thermofisher.com/contactus

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