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Invitrogen™

Platinum™ II Hot-Start Green PCR Master Mix (2X)

Catalog number: 14001013

Catalog Number	**14001013**
Unit Size	200 reactions
Price (USD)	**Price:** 373.00 **Your Price:** 259.20
Availability	Estimated availability date 28-Aug-2023 Available alternatives

Quantity

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Catalog Number	**14001012**
Unit Size	50 reactions
Price (USD)	**Price:** 96.50 **Your Price:** 66.60
Availability	In stock

Quantity

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Catalog Number	**14001014**
Unit Size	1000 reactions
Price (USD)	**Price:** 1,712.00 **Your Price:** 1,184.00
Availability	In stock

Quantity

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Invitrogen Platinum II Hot-Start Green PCR Master Mix (2X) offers Platinum II Taq Hot-Start DNA Polymerase premixed with Platinum II PCR buffer and dNTPs for convenient PCR setup, as well as two tracking dyes for direct loading of PCR products on gels. Platinum II Taq Hot-Start DNA Polymerase is designed for universal primer annealing and fast, easy PCR with its unique combination of innovative buffer, high-performance engineered Taq DNA polymerase, and leading hot-start technology.

Features of Platinum II Hot-Start Green PCR Master Mix (2X) include:
- **Innovative buffer**—enables universal annealing temperature by isostabilizing primer-template duplex structures
- **Engineered Taq DNA polymerase**—confers fast cycling and resistance to common inhibitors
- **Platinum hot-start technology**—enablessures superior specificity, sensitivity, and yields; allows for room temperature reaction setup
- **Green PCR buffer**—helps reduces pipetting error with direct gel loading

Platinum II Taq Hot-Start DNA Polymerase is an engineered Taq DNA polymerase that shows increased resistance to reaction inhibitors originating from sample material or DNA purification steps. The polymerase has a higher DNA synthesis rate and may deliver PCR results more than two times faster than other Taq DNA polymerases. Proprietary Platinum Taq antibodies block polymerase activity at ambient temperatures and dissociate after the initial denaturation step at 94°C. This automatic 'hot start' provides increased sensitivity, specificity, and yield, while allowing reaction assembly at room temperature.

Due to the unique composition of the Platinum II PCR buffer, the annealing temperature is 60°C for most primer pairs designed following the general design rules. Isostabilizing molecules in the buffer increase primer–template duplex stability during the annealing step and contribute to enhanced specificity without the need to optimize annealing temperature for each primer pair. With Platinum II Hot-Start Green PCR Master Mix (2X), different PCR assays can be cycled together using the same protocol with universal primer annealing temperature and the extension step selected for the longest fragment to be amplified.

Platinum II Hot-Start Green PCR Master Mix (2X) is provided with the optional Platinum GC Enhancer for specific amplification and improved yields of GC-rich targets.

Use Platinum II Taq Green Hot Start DNA Polymerase for the amplification of DNA from complex genomic, viral, and plasmid templates, as well as in RT-PCR, in applications like genotyping, high-throughput PCR, or with samples of suboptimal purity.

Platinum II Hot-Start PCR Master Mix (2X) is also available, which is the same master mix without the tracking dyes.

Format	Tube
GC-Rich PCR Performance	High
Polymerase	PlatinumTM II Taq Hot-Start DNA Polymerase
Reaction Speed	Fast or Standard
Product Type	Hot Start PCR Master Mix
Quantity	200 Reactions
Concentration	2X
Fidelity (vs. Taq)	1 X
Hot Start	Built-In Hot Start
No. of Reactions	200 Reactions
Overhang	3'-A
Reaction Format	SuperMix or Master Mix
Size (Final Product)	5 kb or less
Starting Material	DNA

Contents & Storage

- Platinum II Green PCR Master Mix (2X), 4 x 1.25 mL
- Platinum GC Enhancer, 2 x 1.25 mL
- Water, nuclease-free, 4 x 1.25 mL

Store at -20°C in a non-frost-free freezer.

Search by lot number or partial lot number

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Lot #	Certificate Type	Date	Catalog Number(s)
2784700	Certificates of Analysis	Aug 17, 2023	14001014
2779490	Certificates of Analysis	Aug 07, 2023	14001013
2779487	Certificates of Analysis	Aug 07, 2023	14001013
2779503	Certificates of Analysis	Aug 07, 2023	14001013
2779547	Certificates of Analysis	Aug 07, 2023	14001014

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Safety Data Sheets

SDS

Scientific Resources

- Application Note: Platinum II Taq Hot-Start DNA Polymerase enables amplification of AT-rich DNA sequences
- Application Note: Bacterial DNA detection using Platinum II Taq Hot-Start DNA Polymerase
- Application Note: Multiplex PCR using Platinum II Taq Hot-Start DNA Polymerase
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- Application Note: Genotyping from mouse tail using Platinum II Taq Hot-Start DNA Polymerase

Posters

- Poster: Platinum II Taq Hot-Start DNA Polymerase: PCR simplified with universal annealing

Flyers

- Flyer: Platinum II Taq Hot-Start DNA Polymerase
- Flyer: PCR enzymes and sample prep kits for microbiome research

Technical Notes

- Technical Note: Detection of SNPs by fast, simple, and economical PCR

Manuals

User Guide: Platinum II Hot-Start Green PCR Master Mix (2X)

Frequently asked questions (FAQs)

Can I use the same cycling protocol that I use with standard hot-start Taq for PCR reactions with Platinum II Taq Hot-Start DNA Polymerase?	Answer +
Do my primers need to have a melting temperature (Tm) of 60 degrees C for use with Platinum II Taq Hot-Start DNA Polymerase and Platinum II PCR buffer?	Answer +
What is the DNA synthesis rate in PCR with Platinum II Taq Hot-Start DNA Polymerase?	Answer +
With Platinum II Taq Hot-Start DNA Polymerase and Platinum II PCR buffer, how is it possible to use an annealing temperature of 60 degrees C for any primer pair?	Answer +
Can I use a 2-step cycling protocol with Platinum II Taq Hot-Start DNA Polymerase, combining the annealing and extension steps?	Answer +

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Citations & References

Search citations by name, author, journal title or abstract text

Comprehensive Genome-Wide Exploration of C2H2 Zinc Finger Family in Grapevine (

Authors: Arrey-Salas O, Caris-Maldonado JC, Hernández-Rojas B, Gonzalez E

Journal: Genes (Basel)

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Monitoring and contamination incidence of gnotobiotic experiments performed in microisolator cages.

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Investigating the distribution of strains of Erwinia amylovora and streptomycin resistance in apple orchards in New York using CRISPR profiles: a six-year follow-up.

Authors: Wallis A, Yannuzzi IM, Choi MW, Spafford J, Siemon M, Ramachandran P, Timme R, Pettengill J, Cagle R, Ottesen AR, Cox K

Journal: Plant Dis

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Maternal inheritance of mitochondrial DNA in mice after inter-species hybridization and 138 generations of backcrossing.

Authors: Wharton D, Morey KC, Hanner R

Limited antimicrobial efficacy of oral care antiseptics in microcosm biofilms and phenotypic adaptation of bacteria upon repeated exposure.

Authors: Schwarz SR, Hirsch S, Hiergeist A, Kirschneck C, Muehler D, Hiller KA, Maisch T, Al-Ahmad A, Gessner A, Buchalla W, Cieplik F

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