

DreamTaq Hot Start DNA Polymerase



The hot-start polymerase for everyday research

New Thermo Scientific™ DreamTaq™ Hot Start DNA Polymerase offers a great balance between performance and value. Designed for consistently robust and reliable amplification, DreamTaq Hot Start DNA Polymerase can help you more easily get the results you're looking for, with virtually any template, application, or target.

Why use hot-start PCR?

- Prevents amplification of nonspecific products
- Amplifies low-abundance targets
- Provides convenient room-temperature setup

Why use DreamTaq Hot Start DNA Polymerase?

DreamTaq Hot Start DNA Polymerase is the hot-start version of our enhanced Thermo Scientific™ DreamTaq™ DNA Polymerase. Like our standard DreamTaq DNA Polymerase, this hot-start polymerase offers higher yields and longer amplicons than conventional *Taq*-based products. In addition, due to the hot-start modification, DreamTaq Hot Start DNA Polymerase has been engineered to provide increased sensitivity and specificity.

Features:

- Minimized optimization of primer annealing temperatures
- Optimized DreamTaq™ buffer, which includes 20 mM MgCl₂
- Ability to use same cycling conditions as used with conventional *Taq* polymerase
- Wide range of amplicon lengths
- 2X master mix formats
- Direct loading options
- Compatibility with most PCR applications

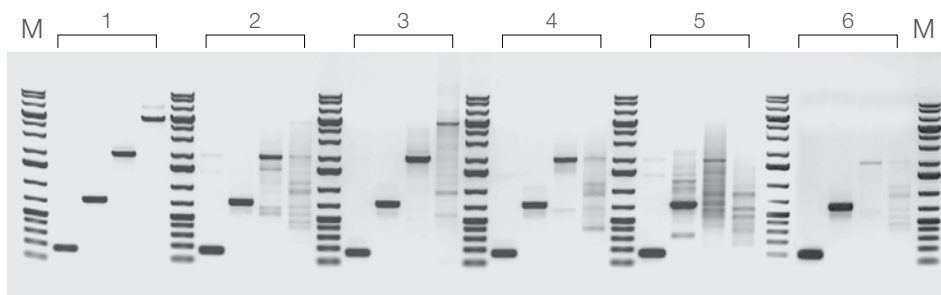


Figure 1. Robust amplification of human genomic DNA. DreamTaq Hot Start DNA Polymerase produces more product, cleaner bands, and longer amplicons than hot-start DNA polymerases from other suppliers. Amplification products (160 bp, 727 bp, 2 kb, or 5 kb) from human genomic DNA are shown in the figure above.

M: GeneRuler 1 kb Plus DNA Ladder. 1. DreamTaq Hot Start DNA Polymerase; 2. Promega GoTaq G2 Hot Start Polymerase; 3. NEB OneTaq Hot Start DNA Polymerase; 4. TaKaRa *Taq* DNA Polymerase Hot Start Version; 5. Kapa Biosystems KAPA2G Robust HotStart PCR Kit; 6. Biorline MyTaq HS DNA Polymerase.

Technical details

- Amplifies from as little as 3 pg human genomic DNA
- Routinely amplifies up to 6 kb genomic DNA and 20 kb lambda DNA
- Generates 3'-dA overhangs
- Incorporates dUTP and modified nucleotides

Usage and applications

Choose DreamTaq Hot Start DNA Polymerase for the amplification of DNA from plasmid, viral, or complex genomic templates. Common applications include:

- Colony PCR
- Genotyping
- RT-PCR
- Generation of PCR products for TA cloning

Why use green?

The Thermo Scientific™ DreamTaq™ Green Buffer (10X) supports direct gel loading of PCR products. The two tracking dyes and a density reagent in the green buffer do not interfere with PCR performance and are compatible with downstream applications including DNA sequencing, ligation, and restriction digestion.



Ordering information

Product	Quantity	Cat. No.
DreamTaq Hot Start DNA Polymerase	200 U	EP1701
	500 U	EP1702
	2,500 U	EP1703
	4 x 2,500 U	EP1704
DreamTaq Hot Start PCR Master Mix	200 reactions	K9011
	1,000 reactions	K9012

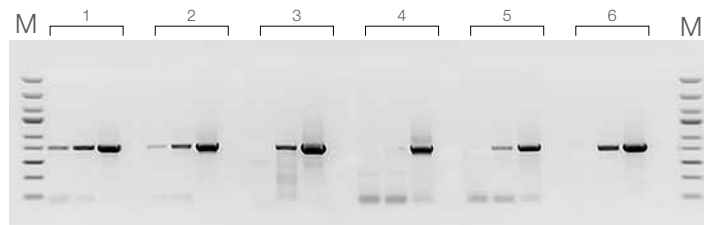


Figure 2. High sensitivity. DreamTaq Hot Start DNA Polymerase amplifies from lower template amounts than hot-start DNA polymerases from other suppliers. Each set of PCR reactions contained either 3 pg, 30 pg, or 3 ng of human genomic DNA.

M: GeneRuler Express DNA Ladder. 1. DreamTaq Hot Start DNA Polymerase; 2. TaKaRa *Taq* DNA Polymerase Hot Start Version; 3. Kapa Biosystems KAPA2G Robust HotStart PCR Kit; 4. Biorline MyTaq HS DNA Polymerase; 5. NEB OneTaq Hot Start DNA Polymerase; 6. Promega GoTaq G2 Hot Start Polymerase.

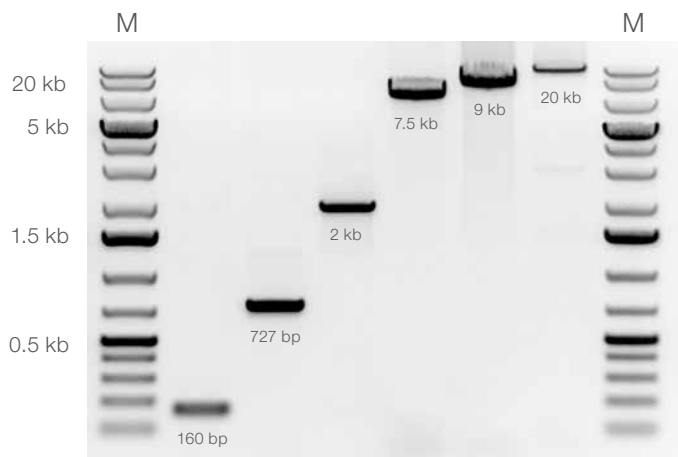


Figure 3. Consistent and reliable amplification. DreamTaq Hot Start DNA Polymerase amplifies human genomic DNA with high specificity up to 9 kb amplicons. Even longer 20 kb amplicons can be amplified with lambda DNA templates.

M: Thermo Scientific™ GeneRuler™ 1 kb Plus DNA Ladder.

Product	Quantity	Cat. No.
DreamTaq Hot Start DNA Polymerase	200 U	EP1711
	500 U	EP1712
	2,500 U	EP1713
	4 x 2,500 U	EP1714
DreamTaq Hot Start PCR Master Mix	200 reactions	K9021
	1,000 reactions	K9022

Find out more at thermofisher.com/dreamtaq