

Hot Start Taq DNA Polymerase

Catalog No.: 40201

Product Name: Hot Start Taq DNA Polymerase

Description

Leadgene Hot Start Taq DNA Polymerase is a Taq DNA polymerase (Cat. No. 40101) contained its neutralizing antibody that prevents nonspecific amplification and primer-dimers formed at low temperatures before PCR cycles. This product provides high fidelity and efficient amplification than traditional Taq DNA polymerase.

Concentration

5 U/ μ L

Package size

250 U/set

Storage

-20°C

Storage buffer

20 mM Tris-HCl (pH 8.0), 0.1 mM EDTA, 1 mM DTT, 100 mM KCl, other stabilizers, 50% glycerol.

10X HS Taq PCR Buffer

200 mM Tris-HCl (pH 8.4), 200 mM KCl, 100 mM $(\text{NH}_4)_2\text{SO}_4$, and others.

25 mM MgCl_2

Quality Control

This product has passed the following quality control assays: functional absence of double- and single-stranded endonuclease activity. Each lot of Taq DNA Polymerase is assayed for amplification from as little as 10 ng of human genomic DNA.

Reaction Mixture Set Up

Component	Condition
Template DNA	10 pg - 100 ng [†]
Primer F (10 μ M)	0.1-1 μ L
Primer R (10 μ M)	0.1-1 μ L
10X HS Taq PCR Buffer	5 μ L
25 mM MgCl_2	2 μ L [#]
10 mM dNTPs (Cat. No. 4007160)	1 μ L
Hot Start Taq DNA polymerase	1-5 U
ddH ₂ O to final volume	50 μ L

[†]For plasmid or viral templates: 10 pg - 1 ng

For genomic or cDNA templates: 1 ng - 100 ng

[#]Additional 0.5-2 mM Mg^{2+} could be optimized.

Recommended thermal cycling conditions

Temperature	Time	Number of Cycles
94°C	5 min	1
94°C	15-30 sec	25-35
Tm-(3-5)°C	30 sec	
72°C	1-2 kb/min	1
72°C	5-10 min	

For research use only.

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