

DATA SHEET

Version: 2
Revision date: 22/03/23Tlf: +34 983 54 85 63
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1. Identification

Product name	Horse-Power™ Taq DNA Polymerase with TruePure™ dNTPs 500 U (5 U/μl) + ultrapure dNTPs 2 mM each
Cat. No	P0026

2. Description

Horse-Power Taq DNA polymerase is a thermostable recombinant enzyme produced in an E. coli strain that carries the cloned pol gene from *Thermus aquaticus*. The enzyme has 5'→3' polymerase activity and a weak 5'→3' exonuclease activity but no 3'→5' exonuclease activity (proofreading).

3. Composition

Item	Quantity
Horse-Power Taq DNA polymerase (5U/μL)	100 μL
10X PCR Buffer	1.5 mL
25mM MgCl ₂ Solution	1.5 mL
TruePure™ Ultrapure dNTPs 8 mM (2 mM each)	1 mL

4. Features

Molecular Weight: 94 kDa.

- Thermostable (half-life at 94 °C is 40 minutes).
- Adds extra nucleotides (preferentially adenine) without template at 3' ends leaving 3' overhangs PCR fragments. This fact allows the popular TA-cloning or GC cloning.
- Incorporates modified nucleotides (biotinylated, fluorescently labelled, etc).

Quality:

- Functionally tested in PCR.
- Undetected bacterial DNA (by PCR).
- Undetectable nucleases activity (endo-, exo- and ribonucleases).

5. Storage specifications

- Store at -20° C

6. Applications

- Routine amplifications.
- Colony screening (see Red-Taq DNA polymerase).
- Amplifications up to 5 kb using plasmid, viral or genomic DNA as template.
- PCR fragments amplification for TA or GC cloning. (Preferably use a proofreading polymerase for cloning purposes combined with an efficient blunt cloning vector) (see pSpark® DNA Cloning System)

7. Assay conditions

25 mM Tris-HCl pH 9.0 at 25 °C, 50 mM KCl, 2 mg MgCl₂, 0.1 mg/mL gelatine, 200 μM dATP, dGTP, dTTP, 100 μM [α -³²P] dCTP (0.05 μCi/nmol) and 12.5 μg activated salmon sperm DNA.



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RECOMMENDED PCR ASSAY (20 μ L assay)

Components	Volume	Final con.
10X PCR buffer	2 μ L	1X
MgCl ₂ 25mM	2 μ L	2.5 mM
dNTPs 8mM mix	2 μ L	0.8 mM
Primer Forward (15mM)	1 μ L	0.75 μ M
Primer Reverse (15mM)	1 μ L	0.75 μ M
Template DNA	0.2-10 μ L	1.75-2.50 ng/ μ L
Horse-Power Taq DNA polymerase (5 U/ μ L)	0.2 μ L	0.05 U/ μ L
Autoclaved distilled water	to 20 μ L	-



Cycling instructions:

- 94 °C 5:00, 25-30x (95 °C 0:30, Tm 0:30, 72°C 1'/kb)
- 72 °C 10:00
- 4 °C ∞

8. Further information

Product Use Limitation This product is developed, designed and sold exclusively only for research purposes use. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.

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