

FIREPol® DNA Polymerase



Some applications of this product may require a license which is not provided by the purchase of this product.

For research use only.

Highly processive, thermostable Taq DNA polymerase

Genetically modified thermostable Taq DNA Polymerase that provides robust and reproducible results

- robust amplification in routine applications
- suitable for templates up to 5 kb
- reaction set-up and shipment without ice
- TA cloning

Ordering

Choose Product Size

- 500 U | 100 µl
- 1000 U | 200 µl
- 2000 U | 400 µl
- 100 U | 20 µl **free sample**

REQUEST FOR BULK SIZE

— Reagents Provided

Item	Pcs.	Vial size
FIREPol® DNA Polymerase	1	500 U 100 µl
10x Reaction Buffer B	1	2.5 ml
10x Reaction Buffer BD	1	2.5 ml
10x Solution S	1	0.1 ml
25 mM MgCl ₂	1	2.5 ml

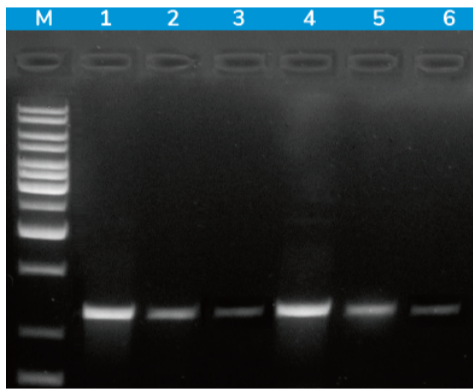
Description

FIREPol[®] is a highly processive, thermostable DNA Polymerase. Due to its genetic modifications, it has enhanced stability at room temperature with no activity loss for up to 1 month.

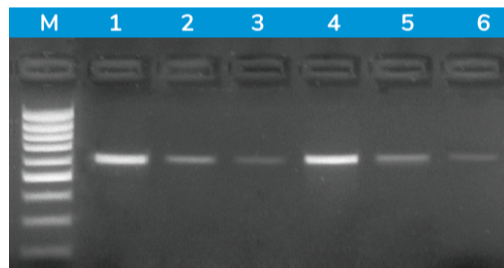
Recommended for routine applications (fragment up to 3 kb from genomic DNA).

Possesses 5'→3' polymerase and 5'→3' exonuclease activity, as well as a non-template-dependent terminal transferase activity, but lacks a 3'→5' exonuclease (proofreading) activity making the generated product suitable for TA-cloning.

The fidelity of FIREPol[®] is similar to a regular Taq DNA Polymerase (error rate per nucleotide ca 2.5×10^{-5}).



Mouse genomic DNA



Plant genomic DNA

Properties

Concentration: 5 U/μl

Error rate per nucleotide per cycle is app. 2.5×10^{-5}

Accuracy is app. 4×10^4

Estimated half life at 95°C is 1.5 hours.

Storage and Dilution Buffer: 50% glycerol (v/v), 20 mM Tris-HCl pH

Source: Purified from an *E.coli* strain that carries an overproducing plasmid containing a modified gene of *Thermus aquaticus* DNA Polymerase.

Kit Components

FIREPol[®] DNA Polymerase (5 U/μl) in 20 mM Tris-HCl pH 8.7 at 25°C, 100 mM KCl, 0.1 mM EDTA, 50% glycerol (v/v), and stabilizers.

FIREPol[®] 10x Buffer B (without Mg^{2+}): 0.8 M Tris-HCl, 0.2 M $(NH_4)_2SO_4$, 0.2% w/v Tween-20.

FIREPol[®] 10x Buffer B contains non-ionic detergent suppressing inhibitory effects of the traces of DNA extraction buffer and enhancing PCR yield and efficiency.

FIREPol[®] 10x Buffer BD (without Mg^{2+} and detergent): 0.8 M Tris-HCl, 0.2 M $(NH_4)_2SO_4$.

25 mM $MgCl_2$

10x Solution S is an additive that facilitates the amplification of difficult templates (e.g. GC-rich DNA templates).

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura,

Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222

Mobile: +91-9810521400

Fax: +91-11-42208444

Email: customerservice@lifetechindia.com

Web: www.lifetechindia.com