

## Biozym Taq DNA Polymerase 1000 units, 5 U/ $\mu$ l

Catalog # 331610

0.2 ml

Store at -20°C

### Description

Thermostable Biozym Taq is a recombinant Taq DNA Polymerase which is highly purified and shows superior PCR performance even with complex templates. Its advanced buffer system allows enhanced speed, specificity and yield.

Biozym Taq is a robust enzyme for routinely PCR applications and performs consistently well on a broad range of templates (including GC and AT rich).

BiozymTaq possesses 5'-3' DNA polymerase activity and 5'-3' exonuclease activity, but lacks 3'-5' proofreading activity.

### Technical support

For technical support please contact support@biozym.com

### Product use limitations

This product is developed and sold exclusively for research purpose and *in vitro* use only.

[www.biozym.com](http://www.biozym.com)

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The enzyme shows an error rate of approximately 1 error per  $2.0 \times 10^5$  nucleotides incorporated. PCR products generated with Biozym Taq are A-tailed and may be cloned into TA cloning vectors

### Kit content

1 x 0.2 ml Biozym Taq DNA Polymerase  
2 x 2.0 ml 10x Taq Reaction Buffer

### Storage

Store at -20°C.

The kit can go through 30 freeze/thaw cycles without loss of activity. The kit can be stored for 1 month at 4°C.

### 10x Reaction buffer

Biozym 10x Taq Reaction Buffer contains  $MgCl_2$ , enhancers and stabilizers. It is not recommended to add further enhancers to the reaction mix.

### NTPs and primer (to be added to the mix)

Final concentration: 1 mM dNTPs (0.25 mM each). Between 0.2  $\mu$ M and 0.6  $\mu$ M primer. 3 mM  $MgCl_2$  (already included in 10x Reaction buffer).

### Extension

For amplicons up to 6 kilobases (kb) it is recommended to use 15 seconds extension time per kb.

### Standard PCR setup and protocol

Component	50 $\mu$ l reaction	Final concentration
10x Taq Reaction Buffer	5.0 $\mu$ l	1x
H <sub>2</sub> O	Add to 50 $\mu$ l	
100 mM dNTPs (25 mM each)	0.5 $\mu$ l	1 mM (0.25 mM each)
Primer A (10 $\mu$ M)	2.0 $\mu$ l	400 nM
Primer B (10 $\mu$ M)	2.0 $\mu$ l	400 nM
Template DNA	$\leq$ 500 ng genomic DNA $\leq$ 10 ng low complex DNA	variable
Taq DNA Polymerase	0.25 $\mu$ l (up to 1.0 $\mu$ l)	1.25 U (up to 5 U)

Cycle step	Temperature	Time	Cycles
Initial denaturation	95°C	1 min	1
Denaturation	95°C	15 s	25 - 40
Annealing	55 – 65°C	15 s	
Extension	72°C	15s/kb	