PB-L
Productos
Bio-Lógicos®

Taq Plus DNA Polymerase

Cat. no. EC0201

Storage: -20℃

Concentration: 2.5 U/μl

Product Size

Product Components	EC0201	EC0202
***Taq* Plus DNA Polymerase**	250 U	500 U
10× *Taq* Plus Buffer	1.8 ml	1.8 ml

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http://www.pb-l.com.ar

Introduction

Taq Plus DNA Polymerase is a special blend of *Taq* polymerase and *Pfu* Polymerase. It possesses both 5'-3' polymerase and exonuclease activity. The advantages of *Taq* Plus DNA Polymerase are high productivity and fidelity. Comparing to regular *Taq* polymerase, *Taq* Plus can efficiently amplify large DNA fragments (20Kb for simple templates and 10Kb for complex templates). Besides, it possesses higher extension rate and amplification efficiency than *Pfu* DNA Polymerase.

Taq Plus DNA Polymerase generates PCR products with 3'-dA overhangs that can be directly used in TA-cloning. To obtain higher cloning efficiency, however, PCR products could be purified and added 3-d'A overhangs before TA cloning procedures.

Unit Definition

One unit of *Taq* Plus DNA Polymerase is defined as the amount that incorporates 10 nmol of dNTPs into acid-insoluble material within 30 min at 74°C with activated salmon sperm DNA as the template-primer.

Storage Buffer

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

10× *Taq* Plus Buffer

200 mM Tris-HCl (pH 8.4), 200 mM KCl, 100 mM $(NH4)_2SO_4$, 15 mM $MgCl_2$ and other components

- There are two types of 10× *Taq* Plus buffer can be chosen: Mg^{2+} plus and Mg^{2+} free.
- Mg^{2+} free buffer is supplied with separate 25 mM $MgCl_2$ Solution.
- Unless specifically requested, Mg^{2+} plus buffer will be supplied as regular component.

Applications

Amplify DNA fragments from complex templates (e.g. Genome) with high fidelity, for applications such as gene cloning, Site-directed mutagenesis, SNP etc.

Example

Note: The following example only for reference, user must set up optimal reaction system according to different reaction conditions such as different templates or primers *etc.*

1. To 50 μl PCR reaction system: 1kb fragment of human genomic DNA was amplified (If use different reaction system, please proportionally increase or decrease the amount of reaction components referring to this system).

Template	< 1 μg
Primer 1(10 μM)	1 μl
Primer 2(10 μM)	1 μl
10× *Taq* Plus Buffer	5 μl
dNTP Mixture (2.5 mM)	4 μl
Taq Plus (2.5 U/μl)	0.5-1 μl
ddH_2O	up to 50 μl

2. PCR cycle set-up:

94°C 3 min	
94°C 30 sec	30 cycles
55°C 30 sec	
72°C 1 min	
72°C 5 min	

3. Result detection: Load 5 μl PCR products to agarose gel for PCR detecting.