PB-L Productos Bio-Lógicos®

Innovación y Desarrollo en Biotecnología

Long *Taq* DNA Polymerase

Cat. no. EC11

Storage: -20℃

Concentration: 2.5 U/μl

Product Size

Product Components	EC1101	EC1102
***Taq* DNA Polymerase Long**	250 U	500 U
10× *Taq* Long Buffer	1.8 ml	1.8 ml
10× *Taq* Long Buffer	1.8 ml	1.8 ml

PRODUCTOS BIO-LOGICOS
http://www.pb-l.com.ar

Introduction

Long *Taq* DNA Polymerase is an independently developed thermo-stable DNA polymerase with 3'-5'exonuclease activity. It possesses high amplification efficiency and high fidelity. Provided with two kinds of buffer, Long *Taq* DNA Polymerase could amplify varied templates. To simple templates, it's good for 40 kb; to complex templates as GC-rich and repeated sequences, it's good for 15 kb. The PCR products can be used directly in TA-cloning procedures. If required of high cloning efficiency, please purify, add A and then make T/A-cloning.

Unit Definition

One unit of Long Taq 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

20mM Tris-HCl(pH8.0),0.1mM EDTA, 1mM DTT,100mM KCl, Stabilizers, 50% Glycerol.

10×Long *Taq*Buffer

Provided with two kinds of buffer, 10× Long *Taq* Buffer I and 10× Long *Taq* Buffer II. Please use Buffer I first, if it fails to amplify the template, use buffer II.

Applications

PCR amplification of long DNA fragments, and complex templates as GC-rich and repeated sequences, *e.g.*,gene map construction, sequencing, molecular genetics research.

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: 1 kb 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* Platinum Buffer	5 μl
dNTP Mixture(2.5 mM)	4 μl
Long Taq (2.5 U/μl)	0.5-1 μl
ddH_2O	up to 50 μl

2. PCR cycle set-up:

94℃ 5 min
94℃ 30 sec
55℃ 30 sec] 30 cycles
72℃ 2 min
72℃ 5 min

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