



Innovación y Desarrollo en Biotecnología

# Taq DNA Pol - Long

Cat. no. EC11

Storage: -20°C

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
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## Introduction

Long TaqDNA 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 TaqDNA 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 TaqDNA 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 (pH 8.0), 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.

The product is used for research only, neither intended for the diagnosis, or treatment of a disease, nor for the food, or cosmetics.

## 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.

- 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 <sub>2</sub> O	up to 50 μl

- PCR cycle set-up
 

94°C 5 min	}	30 cycles
94°C 30 sec		
55°C 30 sec		
72°C 2 min		
72°C 5 min		
- Result detection: Load 5 μl PCR products to agarose gel for PCR detecting.