



## Sepahan Plant Multiplication Biotechnology Co.

### **Taq DNA Polymerase** (recombinant)

Concentration: 5 u/ $\mu$ l

Cat. NO. SP101	500 unit
Cat. NO. SP102	2500 unit
Cat. NO. SP103	5000 unit
Cat. NO. SP104	10000 unit

**Store at -20°C**

#### **Description**

*Taq* DNA Polymerase is a thermostable DNA polymerase that possesses a 5'  $\rightarrow$  3' polymerase activity and a 5' flap endonuclease activity. It is best for routine PCR applications from templates including pure DNA solutions, bacterial colonies, and cDNA.

#### **Source**

An *E. coli* strain that carries the *Taq* DNA Polymerase gene from *Thermus aquaticus*.

#### **Storage Buffer**

Enzyme is supplied in: 20 mM Tris-HCl (pH 8.0), 1 mM DTT, 0.1 mM EDTA, 100 mM KCl, 0.5% Nonidet P40, 0.5% Tween 20 and 50% glycerol.

#### **QUALITY CONTROL**

Tested in the amplification of single-copy gene of *Medicago truncatula* genomic DNA.

#### **Reaction setup**

Component	25 $\mu$ l Reaction	Final Concentration
10X PCR Buffer	2.5	1X
50mM MgCl <sub>2</sub>	0.75 $\mu$ l	1.5mM
10mM dNTP mix	0.5 $\mu$ l	0.2 mM
10 $\mu$ M F Primer	0.5 $\mu$ l	0.2 $\mu$ M
10 $\mu$ M R Primer	0.5 $\mu$ l	0.2 $\mu$ M
Template DNA	variable	<1,000 ng
<i>Taq</i> Polymerase	0.2 $\mu$ l	1unit
Nuclease-free water	to 25 $\mu$ l	

PCR may perform in 25-30 cycles as follows:

Denature 93°C,45 seconds

Anneal 55°C,30seconds

Extend 72 °C,90seconds