

Premix SmartTaq™ DNA Polymerase

Code No. BSTaqmix001

Size: 100 reaction

Long-term Storage and shipping at -20°C

Short-term Storage at 4°C for 6 month

Supplied Reagents:

2x premix SmartTaq™ DNA polymerase 5x500 µl

Premix SmartTaq™ contain:

Tris Base (pH7.8)	20 mM
KCl	100 mM
MgCl ₂	3 mM
dNTP	0.3 mM
Taq DNA polymerase	5U/reaction

Description :

Premix SmartTaq™ DNA polymerase is a thermo-stable enzyme which isolated from *Thermus aquaticus*. The recombinant protein of this enzyme is expressed in *E. coli*. This protein is a 94kDa protein and has both 5' to 3' polymerase and exonuclease activity but without 3' to 5' exonuclease activity.

Unit Definition :

One unit will incorporate 10nmol of total dNTPs into acid-precipitable DNA in 30 min at 74°C

Application :

The application of SmartTaq™ DNA polymerase can amplify DNA sequence by polymerase chain reaction (PCR) or it can add adenine into the end of DNA sequence.

Reaction Mixture for PCR (for total 50 µl) :

2x Premix SmartTaq™	25 µl
Forward and Reverse primer	0.2 to 1 µM
Template	<500 ng
Sterilized distilled water	up to 50 µl

PCR condition

95 °C	3 min	} 35 cycle
95 °C	15 sec	
48~60 °C	20 sec	
72 °C	2 k/min	
72 °C	7 min	
4 °C	---	

PCR test

- SmartTaq™ can amplify:
- an 5 kb fragment form plasmid DNA.
 - an fragment from 4 ng of cDNA.
 - an fragment from 100 fg plasmid.



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