

SmartPfu™ DNA Polymerase

Code No. BSPfu001
Size: 100 reaction
Store and shipping at -20°C

Supplied Reagents:	
2x SmartPfu™ buffer	3 x 850 µl
SmartPfu™ DNA polymerase	100 reaction

SmartPfu™ Storage Buffer:	
Tris Base (pH7.8)	20 mM
KCl	100 mM
EDTA	0.1 M
DTT	1 mM
Tween 20	0.5 %
NP-40	0.5 %
Glycerol	50 %

2X SmartPfu™ Buffer	
Tris Base (pH7.8)	100 mM
KCl	500 mM
MgCl ₂	15 mM
dNTP	0.3 mM

Description :
SmartPfu™ DNA polymerase is a thermo-stable enzyme which isolated from *Pyrococcus Furiosus*. The recombinant protein of this enzyme is expressed in *E. coli*. This protein is a 90kDa protein and has 5' to 3' polymerase , 5' to 3 exonuclease activity and 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 SmartPfu™ DNA polymerase can amplify DNA sequence by polymerase chain reaction (PCR).

Reaction Mixture for PCR (for total 50 µl) :	
2x SmartPfu™ buffer	25 µl
SmartPfu™ DNA polymerase	1 µl
Forward and Reverse primer	0.2 to 1 µM
Template	<500 ng
Sterilized distilled water	up to 50 µl

PCR condition	
94 °C	3 min
94 °C	15 sec
55 °C	20 sec
72 °C	1 k/min
72 °C	7 min
4 °C	---

30 cycle



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