KIAGENE FANAVAR

KlenTaq DNA polymerase

Cat. No:
FPLF005.0250
FPLF005.0500

Contents:

Component	100 RXN	200 RXN
KlenTaq DNA poly. 5 U/µl	50 µl	100 µl
MgCl2 Solution 25 mM	0.5 ml	1 ml
10X Buffer MgCl2 free	0.5 ml	1 ml

Description:

KlenTaq DNA Polymerase has no the N-terminal portion of the gene, encoding *Thermus aquaticus* (*Taq*) DNA polymerase, leaving a highly active and even more thermal stable DNA polymerase activity. KlenTaq has a wide range of optimal $MgCl_2$ concentration. The optimal range of Mg_{2+} concentration for KlenTaq is broader than for the majority of thermostable polymerases. The mutation rate during polymerization is two-fold lower for KlenTaq in comparison with full-length Taq DNA polymerase.

This product is suitable for mutation analysis with mutation-specific oligonucleotides. It has a very low background ability to extend a mismatched 3'-oligonucleotide end making it suitable for mutation analysis with mutation-specific oligonucleotides. Amplicons are T/A cloning compatible.

Kit storage:

This kit should be stored at -20 ºC. Under this condition reagents are stable for two years from the date of production.

Protocol:

1) Thaw 10X reaction buffer, dNTP mixture.
2) Mix the master mix thoroughly and dispense appropriate volumes into PCR tubes or plates.
3) Add templates DNA to the individual PCR tubes or wells containing the master mix.

Component	Volume	Final Conc.
10X Reaction Buffer	2 µl	1X
MgCl2 Solution 25 mM	2.4 µl	3 mM
40 mM dNTPs Mix (10 mM each)	0.5 µl	0.25 mM
Upstream Primer (10 pmol/ µL)	1 µl	0.5 pmoles/µl
Downstream Primer (10 pmol/ µL)	1 µl	0.5 pmoles/µl
Template DNA	Variable	10 fg~1 µg
PCR grade water	Variable	-
KlenTaq DNA poly. 5 U/µl	0.25 µl	-
Total Volume	**20µl**	

4) Program the PCR machine according to the program outlined.

Cycle	Time	Temp °C
1	4 min	95
30-35	30 sec 30 sec 30-60 sec	94 57 72
1	5 min	72

Note:

* Extension temperature is between 68 and 72°C. We highly recommend 68 °C for more efficiency of Klen Taq DNA polymerase.
* For PCR products longer than 3~4 Kb, use an extension time of approximately 1 min per Kb DNA.