Parstous

KlenTaq DNA polymerase

Cat: C101121 (250 U, 50 µL)
Cat: C101122 (500 U, 100 µL)

Store at -20 °C

Contents:

Component	C101121	C101122
KlenTaq DNA poly. 5 U/µl	250 U	500U
$MgCl_2$ Solution 25 mM	0.5 ml	1 ml
10X Buffer $MgCl_2$ 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 °C. Under this conditions reagents are stable for two years from the date of production.

General Reaction 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
$MgCl_2$ Solution 25mM	2.4 µL	3 mM
40 mM dNTPs Mix (10 mM each)	0.5 µL	0.25mM
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	**20 µL**	**-**

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

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

Notes:

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.

Agarose gel Electrophoresis

Run the total 5-7 µL of PCR products alongside 3µL DNA marker on a 2% agarose gel containing Green viewer DNA safe stain.

Disclaimers and Addresses

This product is for research use only and should only be used by trained professionals.

Unit 18, North East Food tech park, Tous Industrial Zone, Mashhad- IRAN
Tel :(+98-51)35420843-5 *Fax: (+98-51) 35420846*
www.parstous.com *info@parstous.com*