Tribioscience

LA Taq DNA Polymerase

Catalog	Unit
TBP0150-500	500 U

Description

LA Taq DNA Polymerase is a high-performance enzyme blend designed for long-range PCR applications, offering yield and fidelity up to three times higher than those of standard Taq DNA Polymerase. Its specially optimized LA Taq Buffer enhances stability during extended thermal cycling by protecting DNA from depurination and nicking. PCR products generated with LA Taq are predominantly 3'-dA tailed, making them suitable for direct cloning into TA vectors.

Product Details

Concentration: 5 u/µl
Storage Buffer: 20mM Tris-HCl (pH8.0); 0.1mM EDTA; 1mM DTT; 100mM KCl; 50% glycerol; Stabilizers.
Storage: -20°C

Features

- Long PCR products.
- Up to 40 kb with viral DNA as template.
- Up to 15 kb with genomic DNA as template.
- Ideal for GC-rich templates up to 85% GC.
- Fidelity is three times higher than with Taq DNA Polymerase.
- High yields. Incorporates modified nucleotides.

Protocol

Reaction PCR Mixture Set Up and Recommended thermal cycling conditions: The flowing is only an example which take a 20KB human genomic DNA as the template, that only for a reference, It can be adjusted according to the length and the sequence of the template and the primer.

1.

Component	Volume	Final Concentration
Template	DNA <1 ug	as required
Forward Primer (10 µM)	1 µl	0.2-0.4 µM each
Reverse Primer (10 µM)	1 µl	0.2-0.4 µM each
10x LA Taq Buffer	5 µl	1x
2.5 mM dNTPs	4 µl	0.2 mM
LA Taq DNA polymerase	0.5µl	2.5 unit
ddH_2O to final volume	50µl	Not applicable

2.

Temperature	Time	Cycles
94°C	3 min	30 cycles
94°C	30 sec	
55°C	30 sec	
72°C	1 min	
72°C	5 min	

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