

斯生物科技股份有限公司

High-Fidelity DNA Polymerase

(Cat. No.: S2GNM02j30003)

Description:

High-Fidelity DNA Polymerase, a recently engineered recombinant DNA polymerase, boasts a remarkable 70-fold increase in fidelity compared to Taq DNA polymerase during amplification, coupled with an exceptionally rapid elongation rate. It possesses $5' \rightarrow 3'$ polymerase activity, $3' \rightarrow 5'$ exonuclease activity and will generate blunt-ended products.

Its outstanding thermostability allows it to endure boiling conditions for up to 2 minutes and remain functional. Additionally, this polymerase is uniquely crafted to function effectively in significantly lower Mg²⁺ concentrations compared to other competitors.

Kit Contents:

Contents	S2GNM02j30003 (100 units)
HiFi DNA Polymerase (1 U/µl)	100 μl
25 mM MgSO ₄	500 μl
10X HiFi Buffer	600 μl
dNTPs Mix (2 mM each)	600 μl
DMSO	600 μl

Storage:

This product is stable for 2 years at -20°C.

Storage buffer:

50 mM Tris-HCl (pH 8.0), 50 mM KCl, 0.1 mM EDTA, 1 mM DTT, stabilizer, 50% (v/v) glycerol



Protocol:

Recommended PCR Condition

Table 1. Reaction Setup		
Components	Volume per 50µl reaction	
Template DNA	1 – 150 ng	
Forward primer	0.1 – 0.5 μM	
Reverse primer	0.1 – 0.5 μM	
10X HiFi Buffer	5 µl	
dNTPs (2 mM each)	5 μl	
DMSO	5 μl	
MgSO₄ (25 mM)	2 μΙ	
HiFi DNA Polymerase	1 μl (1 unit)	
Nuclease-free H ₂ O	to a final volume of 50μl	

Recommended PCR Program

Table 2. Thermal Cyc	ling Program		
Step	Temperature	Time	
Initial denaturation	94°C	2 mins	
Denaturation	94°C	15 sec	
Annealing	50-68°C [#]	30 sec	- 25-40 cycles
Extension	68°C	30 sec/kb	
Final Extension	68°C	1 min	

[#] The optimal PCR conditions differ based on the thermodynamic properties of the primers.

◎ Revision History ◎

Description	Version	Date
Initial Release	S2GNM02j30003_Protocol_V1	Oct 2023