



Power *Taq* DNA Polymerase

(Cat. No.: S2GNM02j30005)

Description:

The Power *Taq* DNA Polymerase is a recombinant protein weighing 94 kDa, which derived from *Escherichia coli* that has been cloned with the Thermo aquatica DNA Polymerase gene. Following induction and expression, the protein undergoes purification and separation through a series of three column purification steps.

The enzyme has 5'-3' polymerase activity and 5'-3' exonuclease activity, and without 3'-5' exonuclease activity. The extension speed of DNA polymerization is 1-2 kb/min at 70-75°C. The PCR product has 3'-dA overhangs, which can be directly cloned in TA-cloning vector.

Kit Contents:

Contents	S2GNM02j30005
Power <i>Taq</i> DNA Polymerase	500 U(2.5 U/μl)
10X <i>Taq</i> Buffer	1.8 ml

Storage:

Stable for 24 months at -20°C.

Instruction:

The following is an example of a conventional PCR reaction for reference only.

For the actual reaction conditions, please set the optimal conditions according to the template, fragment and primer size, and base sequence.

Using human genomic DNA as template to amplify 1 kb fragment.

Template	<1 μg	<u>Setup of the PCR reaction cycle</u> 94°C 3 min 94°C 30 sec 55°C 30 sec 72°C 1 min 72°C 5 min } 30 Cycles
Primer 1 (10μM)	1 μl	
Primer 2 (10μM)	1 μl	
10x <i>Taq</i> Buffer	5 μl	
dNTP Mixture (2.5mM each)	4 μl	
Power <i>Taq</i> DNA polymerase	0.5-1 μl	
ddH ₂ O	Up to 50 μl	

Loading 5 μl for electrophoresis detection after the PCR reaction.



GENOMICS

BIOSCI. & TECH. CO., LTD.
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Protocol

S2GNM02j30005_Protocol_V2

Description	Version	Date
Initial Release	GN-TAQ-100_Protocol_V1	June 2023
Catalog Number Adjustment	S2GNM02j30005_Protocol_V2	Jan 2025