

# Certificate of Analysis

## Taq DNA Polymerase, Recombinant

Product No. 10342020, 10033382

Lot No. 2833474

Date of Manufacture 06-Mar-2024

Expiration Date 31-Jan-2026

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### Concentration

Specification: 5 units/ $\mu$ l

Result: Meets specification.

### Single-Stranded Endonuclease Assay

Specification: When 1  $\mu$ g of M13mp19 (+) Strand DNA is incubated with 8 units of enzyme for 3 hours at 37° C, there must be  $\leq$ 20% degradation as compared to the control.

Result: Meets specification.

### Double-Stranded Endonuclease Assay

Specification: When 1  $\mu$ g of  $\Phi$  X174 RF DNA is incubated with 8 units of enzyme for 3 hours at 37° C, there must be  $\leq$ 40% conversion of Form I DNA to Form II and  $\leq$ 10% conversion to Form III DNA.

Result: Meets specification.

### Purity

Specification: >90% of the total protein must be a band of 94 kDa when analyzed by SDS-PAGE gel.

Result: Meets specification.

### Exonuclease Assay

With 1 pmol of the relevant substrate the following criteria must be obtained after 1 hour incubation at 37° C:

Specification: 3' ds % released:  $\leq 0.3\%$  of termini released per unit of enzyme.

Result: Meets specification.

Specification: 5' ds % released:  $\leq 2\%$  of termini released per unit of enzyme.

Result: Meets specification.

### PCR Functional Assay

Specification: Amplification of brain-derived neurotrophic factor (BDNF) from 10 ng of human genomic DNA isolated from K562 cells must clearly show an 800 bp band on an agarose gel.

Result: Meets specification.

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