

Certificate of Analysis

SuperScript™ III Reverse Transcriptase

Product No. 18080093, 10432122

Lot No. 2917567

Date of Manufacture 29-Feb-2024

Expiration Date 27-Aug-2025

Refractive Index

Specification: 1.40 - 1.41

Result: Meet specifications.

Unit Assay

Specification: 200-270 U/μl

Result: Meets specification.

Specific Activity

Specification: Must be \geq 280,000 U/mg.

Result: Meets specification.

Endonuclease Assay

Specification: \leq 20% conversion of 1μg of ΦX174RF DNA to Form II and no conversion to Form III when incubated for 5 hours at 37°C.

Result: Meets specification.

Exonuclease Assay

Specification: With 1 pmole of relevant substrate and incubated for 1 hour at 37°C, enzyme demonstrates an absence of exonuclease activity.

Result: Meets specification.

RNAse Assay

Specification: When 1,000 units of enzyme are incubated with 5 µg of RNA ladder at 37°C for 30 minutes, there must be no downward smearing below the 0.5 kb band as compared to the control.

Result: Meets specification.

Purity

Specification: When analyzed by SDS-PAGE, $\geq 95\%$ of the protein at 10 µg must be homogeneous at approximately 78,000 daltons.

Result: Meets specification.

RNA Functional Assay

Specification: 200 units of enzyme incubated with 1.5 µg of 8.0 kb RNA for 1 hour at 45°C must synthesize $\geq 65\%$ cDNA. $\geq 45\%$ of the cDNA must be ≥ 6 kb when analyzed by alkaline agarose gel electrophoresis.

Result: Meets specification.

For Research Use Only. Not for use in diagnostic procedures.

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