

New England Biolabs Certificate of Analysis

Product Name: *Thermostable USER® III Enzyme*
Catalog Number: *M5509S*
Concentration: *1,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to nick 10 pmol of a 60-mer fluorescently labeled oligonucleotide duplex containing a single uracil base in 15 minutes at 65°C in a total reaction volume of 10 µL in 1X ThermoPol® Buffer.*
Packaging Lot Number: *10234155*
Expiration Date: *04/2026*
Storage Temperature: *-20°C*
Storage Conditions: *10 mM Tris-HCl, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 178 µg/ml BSA (pH 7.4 @ 25°C)*
Specification Version: *PS-M5509S v1.0*

Thermostable USER® III Enzyme Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M5509SVIAL	Thermostable USER® III Enzyme	10234156	Pass
B9004SVIAL	ThermoPol® Reaction Buffer Pack	10231728	Pass


Assay Name/Specification	Lot # 10234155
RNase Activity (Extended Digestion) A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 µl of Thermostable USER® III Enzyme is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass
qPCR DNA Contamination (E. coli Genomic) A minimum of 1 unit of Thermostable USER® III Enzyme is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.	Pass

This product has been tested and shown to be in compliance with all specifications.

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Production Scientist
27 Mar 2024



Michael Tonello
Packaging Quality Control Inspector
02 Apr 2024