

New England Biolabs Certificate of Analysis

Product Name: *Thermolabile USER[®] II Enzyme*
Catalog Number: *M5508S*
Concentration: *1,000 U/ml*
Unit Definition: *One unit is defined as the amount of enzyme required to nick 10 pmol of a 34 mer fluorescently labeled oligonucleotide duplex containing a single uracil base in 15 minutes at 37°C in a total reaction volume of 10 µL in 1X T4 DNA Ligase Buffer.*
Packaging Lot Number: *10159629*
Expiration Date: *08/2024*
Storage Temperature: *-20°C*
Storage Conditions: *25 mM KCl, 35 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 15 mM Tris-HCl, 100 µg/ml BSA, 50 % Glycerol, (pH 7.5 @ 25°C)*
Specification Version: *PS-M5508S/L v1.0*

Thermolabile USER [®] II Enzyme Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M5508SVIAL	Thermolabile USER [®] II Enzyme	10159628	Pass
B6004SVIAL	rCutSmart [™] Buffer	10156429	Pass

Assay Name/Specification	Lot # 10159629
<p>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 Thermolabile USER[®] II 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.</p>	Pass
<p>qPCR DNA Contamination (E. coli Genomic) A minimum of 1 unit of Thermolabile USER[®] II 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.</p>	Pass
<p>Functional Testing (USER, Transformation assay) A 10 µl reaction in ThermoPol[®] Reaction Buffer containing 20 ng linearized pNEB206A, 100 ng of a 950 bp control PCR product and 1 unit of Thermolabile USER[®] II Enzyme was incubated for 15 minutes at 37°C followed by 15 minutes at 25°C. After</p>	Pass

