

New England Biolabs Product Specification

<i>Product Name:</i>	<i>T5 Exonuclease</i>
<i>Catalog #:</i>	<i>M0663S/L</i>
<i>Concentration:</i>	<i>10,000 units/ml</i>
<i>Unit Definition:</i>	<i>One unit of T5 Exonuclease is defined as the amount of enzyme required to cause the change of 0.00032 A260 nm/min at 37°C in CutSmart Buffer.</i>
<i>Shelf Life:</i>	<i>24 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>50 mM Tris-HCl, 100 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 0.1 % Triton X-100, (pH 7.5 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-M0663S/L v2.0</i>
<i>Effective Date:</i>	<i>15 Dec 2021</i>

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking) - A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled pUC19 DNA and a minimum of 30 units of T5 Exonuclease incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

Protein Purity Assay (SDS-PAGE) - T5 Exonuclease is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.

qPCR DNA Contamination (*E. coli* Genomic) - A minimum of 1 ul of T5 Exonuclease 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.

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Derek Robinson
Director, Quality Control

