

New England Biolabs Product Specification

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| Product Name: | <i>Exonuclease III (E. coli)</i> |
| Catalog #: | M0206S/L |
| Concentration: | 100,000 units/ml |
| Unit Definition: | One unit is defined as the amount of enzyme required to produce 1 nmol of acid-soluble total nucleotide in a total reaction volume of 50 μ l in 30 minutes at 37°C in 1X NEBuffer 1 with 0.15 mM sonicated duplex [3H]-DNA. |
| Shelf Life: | 24 months |
| Storage Temp: | -20°C |
| Storage Conditions: | 200 mM KCl, 5 mM KPO ₄ , 0.05 mM EDTA, 5 mM β ME, 50 % Glycerol, 200 μ g/ml BSA, (pH 6.5 @ 25°C) |
| Specification Version: | PS-M0206S/L v1.0 |
| Effective Date: | 06 Apr 2018 |

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking) - A 50 μ l reaction in NEBuffer 1 containing 1 μ g of supercoiled PhiX174 DNA and a minimum of 300 units of Exonuclease III (*E. coli*) incubated for 4 hours at 37°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.

Protein Purity Assay (SDS-PAGE) - Exonuclease III (*E. coli*) is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.

qPCR DNA Contamination (*E. coli* Genomic) - A minimum of 100 units of Exonuclease III (*E. coli*) 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 \leq 1 *E. coli* genome.



Date 06 Apr 2018

Derek Robinson
Director of Quality Control

