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New England Biolabs
Certificate of Analysis

Product Name:	*Exonuclease III (E. coli)*
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 µl in 30 minutes at 37°C in 1X NEBuffer 1 with 0.15 mM sonicated duplex [3H]-DNA.*
Lot #:	*0341712*
Assay Date:	*12/2017*
Expiration Date:	*12/2019*
Storage Temp:	*-20°C*
Storage Conditions:	*200 mM KCl, 5 mM KPO_4 , 0.05 mM EDTA, 5 mM βME, 50 % Glycerol, 200 µg/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)	**Lot #0341712**
Endonuclease Activity (Nicking) - A 50 µl reaction in NEBuffer 1 containing 1 µg 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.	**Pass**
Protein Purity Assay (SDS-PAGE) - Exonuclease III (*E. coli*) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**
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 ≤ 1 *E. coli* genome.	**Pass**

Authorized by
Derek Robinson
06 Apr 2018

Inspected by
John Greci
13 Dec 2017

ISO 9001 Registered Quality Management
ISO 14001 Registered Environmental Management
ISO 13485 Registered Medical Devices