

New England Biolabs Product Specification

Product Name:	<i>Micrococcal Nuclease</i>
Catalog #:	M0247S
Concentration:	2,000,000 units/ml
Unit Definition:	One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 15 minutes at 37°C, to the extent that the accumulation of low molecular DNA fragments is <400 base pairs as determined by agarose gel electrophoresis.
Shelf Life:	24 months
Storage Temp:	-20°C
Storage Conditions:	50 mM NaCl, 10 mM Tris-HCl, 1 mM EDTA, 50 % Glycerol, (pH 7.5 @ 25°C)
Specification Version:	PS-M0247S v1.0
Effective Date:	11 Oct 2017

Assay Name/Specification (minimum release criteria)

Protease Activity (SDS-PAGE) - A 20 µl reaction in 1X Micrococcal Nuclease Reaction Buffer containing 24 µg of a standard mixture of proteins and a minimum of 10,000 units of Micrococcal Nuclease incubated for 16 hours at 37°C, results in no detectable degradation of the protein mixture as determined by SDS-PAGE with Coomassie Blue detection.

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

qPCR DNA Contamination (E. coli Genomic) - A minimum of 2,000 units of Micrococcal Nuclease 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.

* The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.



Date 11 Oct 2017

Derek Robinson
Director of Quality Control

