

## New England Biolabs Product Specification

<b>Product Name:</b>	<i>Micrococcal Nuclease</i>
<b>Catalog #:</b>	M0247S
<b>Concentration:</b>	2,000,000 units/ml
<b>Unit Definition:</b>	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.
<b>Shelf Life:</b>	24 months
<b>Storage Temp:</b>	-20°C
<b>Storage Conditions:</b>	50 mM NaCl, 10 mM Tris-HCl, 1 mM EDTA, 50 % Glycerol, (pH 7.5 @ 25°C)
<b>Specification Version:</b>	PS-M0247S v2.0
<b>Effective Date:</b>	11 Jan 2023

### 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.

One or more products referenced in this document may be covered by a 3rd-party trademark.  
Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



Date 11 Jan 2023

Lauren Brown  
Quality Approver

