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## New England Biolabs Certificate of Analysis

| Product Name:          | Micrococcal Nuclease  |
|------------------------|---|
| Catalog #:             | M0247S  |
| Concentration:         | 2,000,000 units/ml  |
| Unit Definition:       | One unit is defined as the amount of enzyme required to digest 1 $\mu$ g 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. |
| Lot #:                 | 0171804   |
| Assay Date:            | 04/2018   |
| Expiration Date:       | 04/2020   |
| 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: | <i>PS-M0247S v1.0</i>   |
| Effective Date:        | 08 Nov 2017   |

| Assay Name/Specification (minimum release criteria)  | Lot #0171804 |
|--|--------------|
| <b>Protease Activity (SDS-PAGE)</b> - A 20 $\mu$ l reaction in 1X Micrococcal Nuclease Reaction Buffer containing 24 $\mu$ g 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.  | Pass         |
| <b>Protein Purity Assay (SDS-PAGE)</b> - Micrococcal Nuclease is $\geq$ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.  | Pass         |
| <b>qPCR DNA Contamination (E. coli Genomic)</b> - A minimum of 2,000 units of Micrococcal Nuclease is screened for the presence of <i>E. coli</i> genomic DNA using SYBR® Green qPCR with primers specific for the <i>E. coli</i> 16S rRNA locus. Results are quantified using a standard curve generated from purified <i>E. coli</i> genomic DNA. The measured level of <i>E. coli</i> genomic DNA contamination is $\leq 1 E$ . <i>coli</i> genome. | Pass         |

\* 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.

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Authorized by Derek Robinson 08 Nov 2017



Alm J. Shoei

Inspected by John Greci 04 Apr 2018