

New England Biolabs Product Specification

<i>Product Name:</i>	<i>Histone H3.3 Human, Recombinant</i>
<i>Catalog #:</i>	<i>M2507S</i>
<i>Concentration:</i>	<i>1 mg/ml</i>
<i>Unit Definition:</i>	<i>N/A</i>
<i>Shelf Life:</i>	<i>24 months</i>
<i>Storage Temp:</i>	<i>-20°C</i>
<i>Storage Conditions:</i>	<i>300 mM NaCl, 20 mM NaPO₄, 1 mM DTT, 1 mM EDTA, (pH 7.0 @ 25°C)</i>
<i>Specification Version:</i>	<i>PS-M2507S v2.0</i>
<i>Effective Date:</i>	<i>19 Jan 2021</i>

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking) - A 50 µl reaction in NEBuffer 2 containing 1 µg of supercoiled PhiX174 RF I DNA and a minimum of 10 µg of Histone H3.3 Human, Recombinant incubated for 4 hours at 37°C results in <10% conversion to RFII as determined by agarose gel electrophoresis.

Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [³H] *E. coli* DNA and a minimum of 10 µg of Histone H3.3 Human, Recombinant incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.

Molecular Weight Determination (Mass Spectrometry) - The molecular weight of Histone H3.3 Human, Recombinant is between 15,195.53 and 15,197.72 as determined by mass spectrometry analysis.

Protease Activity (Histones) - A 12 µl reaction containing 7 µl of a standard mixture of proteins and a minimum of 5 µg of Histone H3.3 Human, Recombinant incubated for 4 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) - Histone H3.3 Human, Recombinant is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.

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Date 19 Jan 2021

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