

## New England Biolabs Product Specification

*Product Name:* Histone H3.3 Human, Recombinant  
*Catalog #:* M2507S  
*Concentration:* 1 mg/ml  
*Unit Definition:* N/A  
*Shelf Life:* 24 months  
*Storage Temp:* -20°C  
*Storage Conditions:* 300 mM NaCl, 20 mM NaPO<sub>4</sub>, 1 mM DTT, 1 mM EDTA, (pH 7.0 @ 25°C)  
*Specification Version:* PS-M2507S v1.0  
*Effective Date:* 25 Sep 2017

### 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 [<sup>3</sup>H] *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 15,195.91 and 15,197.99 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.



Date 25 Sep 2017

Derek Robinson  
Director of Quality Control

