

## New England Biolabs Certificate of Analysis

**Product Name:** *Histone H3.1 Human Recombinant*  
**Catalog Number:** *M2503S*  
**Concentration:** *1 mg/ml*  
**Unit Definition:** *N/A*  
**Packaging Lot Number:** *10178816*  
**Expiration Date:** *02/2025*  
**Storage Temperature:** *-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-M2503S v2.0*

Histone H3.1 Human Recombinant Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M2503SVIAL	Histone H3.1 Human, Recombinant	10178080	Pass

Assay Name/Specification	Lot # 10178816
<b>Protein Purity Assay (SDS-PAGE)</b> Histone H3.1 Human, Recombinant is $\geq 95\%$ pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	<b>Pass</b>
<b>Molecular Weight Determination (Mass Spectrometry)</b> The molecular weight of Histone H3.1 Human, Recombinant is between 15,271.71 and 15,273.89 as determined by mass spectrometry analysis.	<b>Pass</b>
<b>Protease Activity (Histones)</b> A 12 $\mu$ l reaction containing 7 $\mu$ l of a standard mixture of proteins and a minimum of 5 $\mu$ g of Histone H3.1 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.	<b>Pass</b>
<b>Endonuclease Activity (Nicking)</b> A 50 $\mu$ l reaction in NEBuffer 2 containing 1 $\mu$ g of supercoiled PhiX174 RF I DNA and a minimum of 10 $\mu$ g of Histone H3.1 Human, Recombinant incubated for 4 hours at 37°C results in <10% conversion to RFI as determined by agarose gel electrophoresis.	<b>Pass</b>
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 $\mu$ l reaction in NEBuffer 2 containing 1 $\mu$ g of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 10 $\mu$ g of Histone H3.1 Human,	<b>Pass</b>

Assay Name/Specification	Lot # 10178816
Recombinant incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	

This product has been tested and shown to be in compliance with all specifications.

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