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New England Biolabs
Certificate of Analysis

Product Name:	*Histone H3.1 Human, Recombinant*
Catalog #:	*M2503S*
Concentration:	*1 mg/ml*
Unit Definition:	*N/A*
Lot #:	*0051712*
Assay Date:	*12/2017*
Expiration Date:	*12/2019*
Storage Temp:	*-20°C*
Storage Conditions:	*300 mM NaCl, 20 mM $NaPO_4$, 1 mM DTT, 1 mM EDTA, (pH 7.0 @ 25°C)*
Specification Version:	*PS-M2503S v1.0*
Effective Date:	*22 Sep 2017*

Assay Name/Specification (minimum release criteria)	**Lot #0051712**
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 H3.1 Human, Recombinant incubated for 4 hours at 37°C results in <10% conversion to RFII as determined by agarose gel electrophoresis.	**Pass**
Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in NEBuffer 2 containing 1 µg of a mixture of single and double-stranded [^{3}H] *E. coli* DNA and a minimum of 10 µg of Histone H3.1 Human, Recombinant incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	**Pass**
Molecular Weight Determination (Mass Spectrometry) - The molecular weight of Histone H3.1 Human, Recombinant is between 15,272.31 and 15,274.39 as determined by mass spectrometry analysis.	**Pass**
Protease Activity (Histones) - A 12 µl reaction containing 7 µl of a standard mixture of proteins and a minimum of 5 µg of Histone H3.1 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.	**Pass**
Protein Purity Assay (SDS-PAGE) - Histone H3.1 Human, Recombinant is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	**Pass**

Authorized by
Derek Robinson
22 Sep 2017

Inspected by
Fana Mersha
01 Dec 2017

ISO 9001 Registered Quality Management
ISO 14001 Registered Environmental Management
ISO 13485 Registered Medical Devices