NEW ENGLAND BioLabs® Inc.

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New England Biolabs
Product Specification

Product Name:	*Histone H2A Human, Recombinant*
Catalog #:	*M2502S*
Concentration:	*1 mg/ml*
Unit Definition:	*N/A*
Shelf Life:	*24 months*
Storage Temp:	*-20°C*
Storage Conditions:	*300 mM NaCl, 20 mM $NaPO_4$, 1 mM EDTA, (pH 7.0 @ 25°C)*
Specification Version:	*PS-M2502S v2.0*
Effective Date:	*19 Jan 2021*

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 H2A 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 [^{3}H] *E. coli* DNA and a minimum of 10 µg of Histone H2A 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 H2A Human, Recombinant is between 13,989.09 and 13,991.28 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 H2A 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 H2A Human, Recombinant is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.

Date 19 Jan 2021

Derek Robinson
Director, Quality Control