New England Biolabs
Product Specification

Product Name: Histone H4 Human, Recombinant
Catalog #: M2504S
Concentration: 1 mg/ml
Unit Definition: N/A
Shelf Life: 24 months
Storage Temp: -20°C
Storage Conditions: 300 mM NaCl, 20 mM NaPO₄, 1 mM EDTA, (pH 7.0 @ 25°C)
Specification Version: PS-M2504S v1.0
Effective Date: 22 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 H4 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 H4 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 H4 Human, Recombinant is between 11235.70 and 11237.78 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 H4 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 H4 Human, Recombinant is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.

Derek Robinson
Director of Quality Control