

Nucleosome, Recombinant Human, H3K9ac dNuc Non-Biotinylated

Catalog No. 16-1314

Lot No. 21147005-63

Pack Size 50 µg

Product Description:

Mononucleosomes assembled from recombinant human histones expressed in *E. coli* (two each of histones H2A, H2B, H3 and H4; accession numbers: H2A-P04908; H2B-O60814; H3.2-Q71DI3 *; H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. Histone H3 (created by a proprietary semi-synthetic method) contains acetyl-lysine at position 9. The nucleosome is the basic subunit of chromatin. The 147 bp 601 sequence, identified by Lowary and Widom, has high affinity for histone octamers and is useful for nucleosome assembly. * H3K9ac has a Cys to Ala substitution at position 110.

Formulation:

Nucleosome, Recombinant Human, H3K9ac (27.3 µg protein weight, 50 µg total weight) in 55.6 µL of 10 mM Tris HCl pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol. Molarity = 4.5 µM. MW = 199,822 Da.

Storage and Stability:

Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.

Application Notes:

H3K9ac dNuc is highly purified and suitable for a variety of applications, including use as a substrate in enzymatic assays or for effector protein binding experiments.

References:

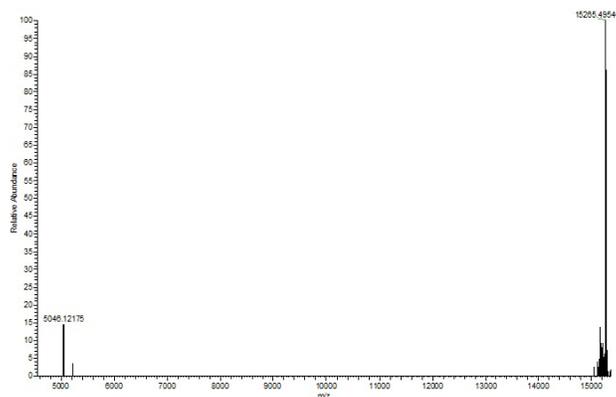
Lowary PT and J Widom (1998). *J Mol Biol* 276: 19-42.
Luger K et al (1999). *Methods Mol Biol* 119: 1-16.



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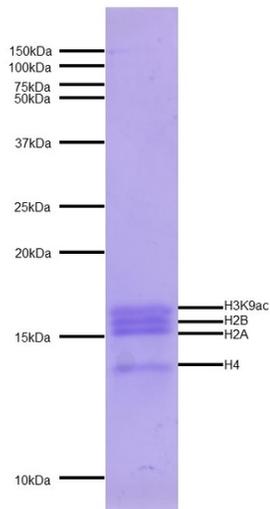


Western Blot Data: Western Analysis of Nucleosome, Recombinant Human, H3K9ac dNuc. **Top Panel:** Unmodified H3 (Lane 1) and H3K9ac containing nucleosomes (Lane 2) were probed with an anti-H3K9ac antibody and analyzed via ECL readout. Only the H3K9ac sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified H3 nucleosome (Lane 1) and H3K9ac containing nucleosome (Lane 2).

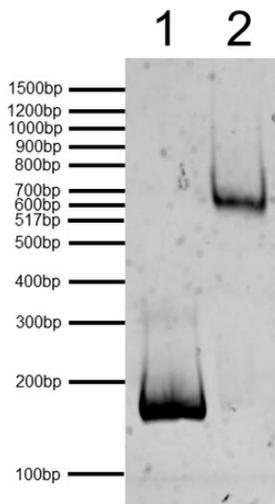


Mass Spec Data: Synthetic H3K9ac histone analyzed by ESI-TOF mass spectrometry. Expected mass = 15266.8 Da. Determined mass = 15,265.5 Da.

This product is for *in vitro* research use only and is not intended for use in humans or animals.



Protein Gel Data: Coomassie stained PAGE gel of proteins in Nucleosome, Recombinant Human, H3K9ac dNuc (1 μ g) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3K9ac and H4) are indicated.



DNA Gel Data: Nucleosome, Recombinant Human, H3K9ac dNuc resolved via native PAGE gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (100 ng). **Lane 2:** Intact H3K9ac containing nucleosomes (400 ng).

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