

Nucleosome, Recombinant Human, H3K27ac dNuc, Non-biotinylated

Catalog No. 16-1365
Lot No. 17333001
Pack Size 50 µg



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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; H3.1-P68431; H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. Histone H3 (created by a proprietary synthetic method) contains acetyl-lysine at position 27. The nucleosome is the basic subunit of chromatin. The 601 sequence, identified by Lowary and Widom, is a 147-base pair sequence that has high affinity for histone octamers and is useful for nucleosome assembly.

Formulation:

Nucleosome, Recombinant Human, H3K27ac (27.4 µg protein weight, 50 µg DNA+protein) in 68.1µl 10mM Tris HCl, pH 7.5, 25mM NaCl, 1mM EDTA, 2mM DTT, 20% glycerol. Molarity = 3.67 µmolar. MW = 200,075.

Storage and Stability:

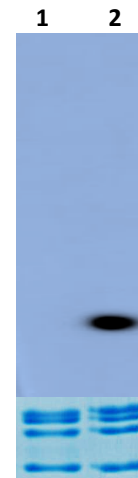
Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.

Application Notes:

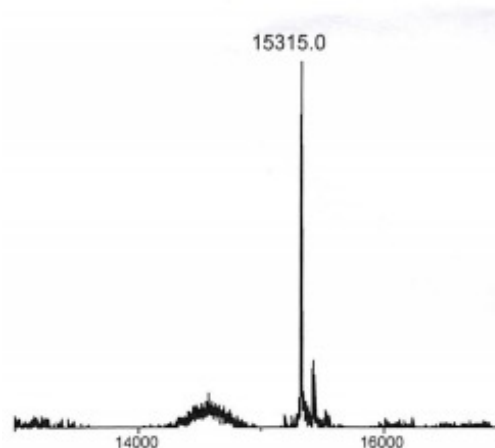
Nucleosome, Recombinant Human, H3K27ac are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein binding experiments.

References Using this Product:

Lowary PT and J Widom (1998). *J Mol Biol* 276: 19-42.



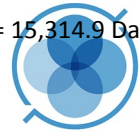
Western Blot Data: Western Analysis of Nucleosome, Recombinant Human, H3K27ac. **Top Panel:** Unmodified H3 (Lane 1) and H3K27ac containing nucleosomes (Lane 2) were probed with an anti-H3K27ac antibody and analyzed via ECL readout. Only the H3 K27ac sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified (Lane 1) and H3K27ac nucleosome (Lane 2).



Mass Spec Data: Synthetic H3K27ac protein analyzed by ESI-TOF

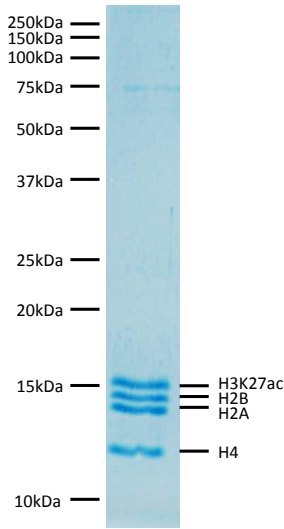
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mass spectrometry. Expected mass = 15,314.9 Da. Determined mass = 15,315.0 Da.

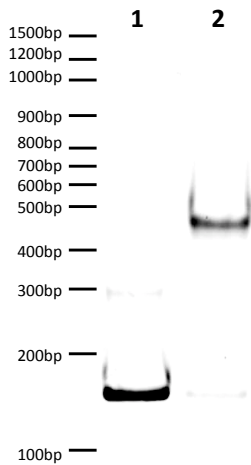


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Protein Gel Data: Coomassie stained PAGE gel of proteins in Nucleosome, Recombinant Human, H3K27ac (1 µg) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3K27ac and H4) are indicated.



DNA Gel Data: Nucleosome, Recombinant Human, H3K27ac resolved by native PAGE and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA extracted from nucleosomes (200 ng). **Lane 2:** Intact nucleosomes (400 ng).



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