Nucleosome, Recombinant Human, H2BK12ac dNuc, Biotinylated

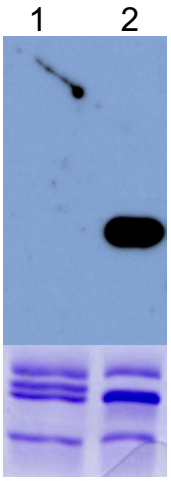
Catalog No. 16-0386

Lot No. 19354001-58

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; H3.1-P68431; H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. Histone H2B (created by a proprietary synthetic method) contains acetyl-lysine at position 12. 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 and contains a 5' biotin-TEG group.



Western Blot Data: Western Analysis of Nucleosome, Recombinant Human, H2BK12ac. **Top Panel:** Unmodified H3 (Lane 1) and H2BK12ac containing nucleosomes (Lane 2) were probed with an anti-H2BK12ac antibody and analyzed via ECL readout. Only the H2BK12ac sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified nucleosomes (Lane 1) and H2BK12ac nucleosomes (Lane 2).

Formulation:

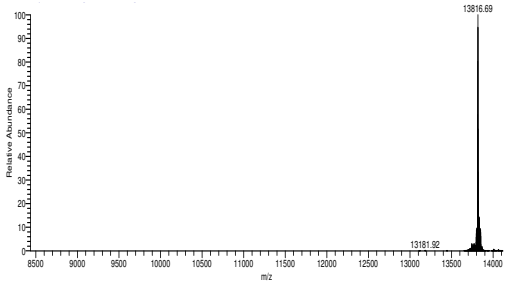
Nucleosome, Recombinant Human, H2BK12ac (27.4 µg protein weight, 50 µg DNA+protein) in 51 µl 10 mM Tris HCl, pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol.
Molarity = 4.90 µmolar. MW = 199,943.86 Da

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:

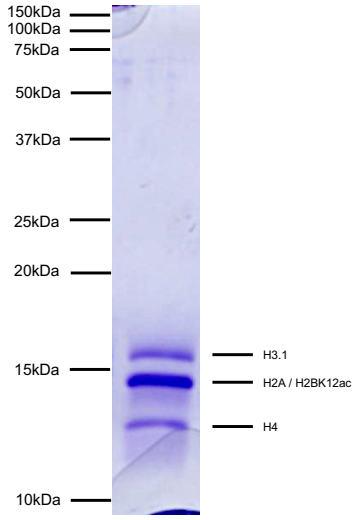
Nucleosome, Recombinant Human, H2BK12ac dNucs are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein binding experiments.



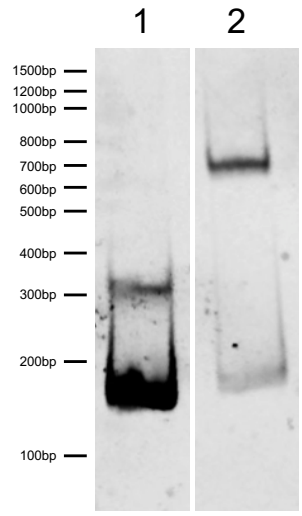
Mass Spec Data: H2BK12ac protein analyzed by high resolution mass spectrometry. Expected mass = 13815.95 Da. Determined mass = 13816.69 Da.

References:

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



Protein Gel Data: Coomassie stained PAGE gel of proteins in Nucleosome, Recombinant Human, H2BK12ac (1 µg) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2BK12ac, H3.1 and H4) are indicated. H2A and H2BK12ac comigrate.



DNA Gel Data: Nucleosome, Recombinant Human, H2BK12ac run on a native PAGE gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (100 ng). **Lane 2:** Intact nucleosomes (400 ng).