

Nucleosome, Recombinant Human, H4Tetraacetyl (H4K5,8,12,16ac) dNuc, Biotinylated

Catalog No. 16-0313
Lot No. 20321006-56
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 H4 (created by a proprietary semi-synthetic method) contains N-term. α -acetylation and acetyl-lysine at positions 5, 8, 12 and 16. The nucleosome is the basic subunit of chromatin. The 601 sequence, identified by Lowary and Widom, is a 147-base pair sequence that is useful for nucleosome assembly and contains a 5' biotin TEG group.

Formulation:

Recombinant H4 Tetraacetyl mononucleosomes (27.3 µg protein by mass, 50.0 µg protein+DNA in 60.5 µL) in 10 mM Tris-HCl pH 7.5, 1 mM EDTA, 25 mM NaCl, 2 mM DTT, & 20% glycerol. Concentration of nucleosomes is 4.11 µM. Nucleosome molecular weight = 200,279.9 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:

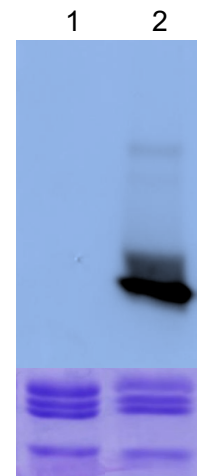
Nucleosome, Recombinant Human, H4 Tetraacetyl are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein (especially bromodomain) binding experiments. **Nucleosome, Recombinant Human, H4 Tetraacetyl from EpiCypher does not contain free DNA which could alter assayed activities.**

References:

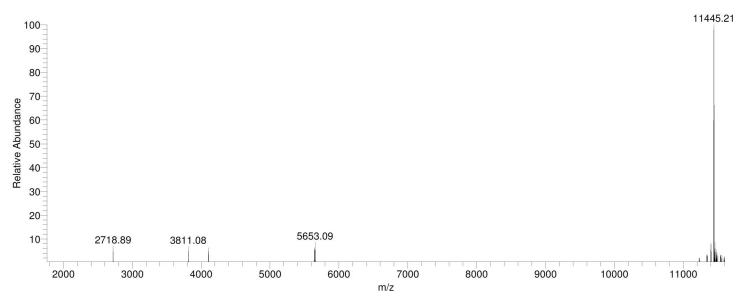
Lowary PT and J Widom (1998). *J Mol Biol* 276: 19-42.
Luger K et al (1999). *Methods Mol Biol* 119: 1-16.



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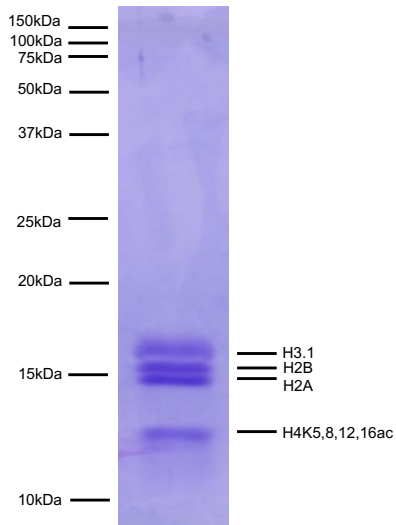


Western Blot Data: Western Analysis of Nucleosome, Recombinant Human, H4 Tetraacetyl. **Top Panel:** Unmodified H4 (Lane 1) and H4 Tetraacetyl containing nucleosomes (Lane 2) were probed with an anti-H4 Tetraacetyl antibody and analyzed via ECL readout. Only the H4 Tetraacetyl sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified (Lane 1) or H4 Tetraacetyl nucleosomes (Lane 2).

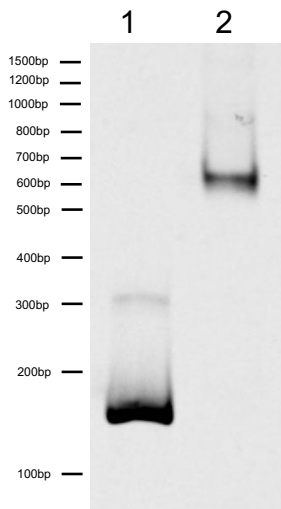


Mass Spec Data: Synthetic H4 Tetraacetyl protein analyzed by ESI-TOF mass spectrometry. Expected mass = 11446.0 Da. Determined mass = 11445.21 Da.

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, H4 Tetraacetyl (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, H3 and H4 Tetraacetyl) are indicated.



DNA Gel Data: Nucleosome, Recombinant Human, H4 Tetraacetyl resolved via native PAGE and stained with ethidium bromide to visualize DNA.
Lane 1: Free DNA extracted from nucleosomes (100 ng).
Lane 2: Intact nucleosomes (400 ng).

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