

Nucleosome, Recombinant Human, H4K16ac dNuc, Biotinylated



EpiCypher®

Catalog No 16-0354
Lot No 22123004-01
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 fully synthetic method) contains acetyl-lysine at position 16. The nucleosome is the basic subunit of chromatin. The 147 bp 601 sequence, identified by Lowary and Widom [1], has high affinity for histone octamers and is useful for nucleosome assembly. The DNA contains a 5' biotin-TEG group.

Formulation:

H4K16ac dNuc (27.3 µg protein weight, 50 µg DNA + protein) in 61.1 µL 10 mM Tris HCl pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol. Molarity = 4.09 µM. MW = 200,026.8 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:

H4K16ac 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:

[1] Lowary & Widom *J Mol. Biol.* (1998) PMID: 9514715



Figure 1: Western blot data. Western Analysis of H4K16ac dNuc. **Top Panel:** Unmodified (EpiCypher 16-0006; Lane 1) and H4K16ac nucleosomes (Lane 2) were probed with an H4K16ac antibody and analyzed via ECL readout. Only the H4K16ac sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified (Lane 1) and H4K16ac nucleosomes (Lane 2).

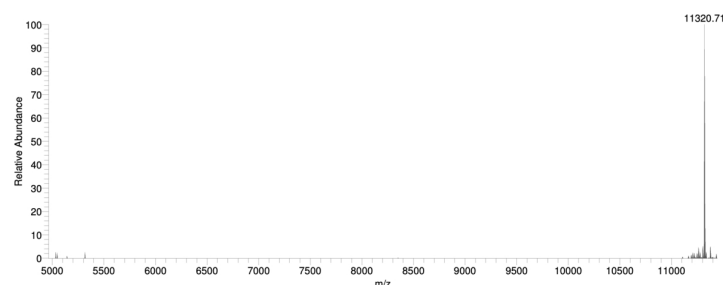


Figure 2: Mass spec data. Synthetic H4K16ac histone analyzed by high resolution mass spectrometry. Expected mass = 11,320.2 Da. Determined mass = 11,320.71 Da.

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

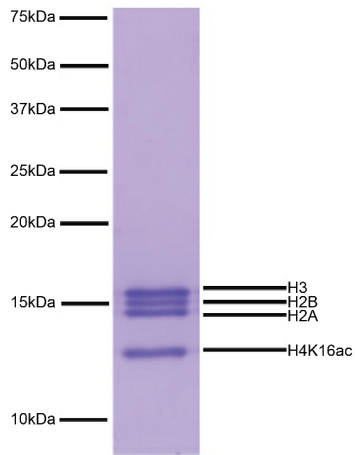


Figure 3: Protein gel data. Coomassie stained PAGE gel of proteins in H4K16ac dNuc (1 μ g) demonstrates the purity of histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3 and H4K16ac) are indicated.

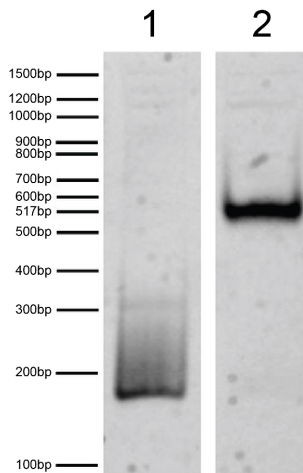


Figure 4: DNA gel data. H4K16ac dNuc resolved via native PAGE and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (EpiCypher 18-0005; 100 ng). **Lane 2:** Intact H4K16ac nucleosomes (400 ng).

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