

# Nucleosome, Recombinant Human, H4K5ac dNuc, Biotinylated

**Catalog No.** 16-0352

**Lot No.** 21147003-61

**Pack Size** 50 µg



## EpiCypher®

### 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 synthetic method) is N-terminally acetylated and contains acetyl-lysine at position 5. 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. The DNA contains a 5' biotin-TEG group.

### Formulation:

Nucleosome, Recombinant Human, H4K5ac (27.3 µg protein weight, 50 µg total weight) in 50 µL of 10 mM Tris HCl pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol. Molarity = 5 µM. MW = 200,027.9 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:

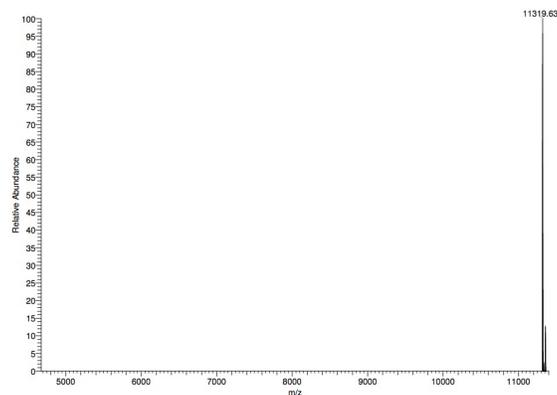
H4K5ac dNuc is highly purified and suitable for a variety of applications, including use as a substrate in enzymatic assays or for effector protein binding experiments.

### References:

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

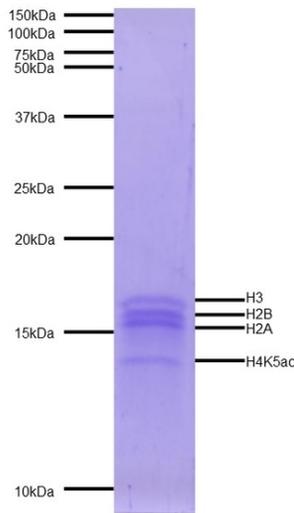


**Western Blot Data:** Western Analysis of Nucleosome, Recombinant Human, H4K5ac. **Top Panel:** Unmodified H4 (Lane 1) and H4K5ac containing nucleosomes (Lane 2) were probed with an anti-H4K5ac antibody and analyzed via ECL readout. Only the H4K5ac sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified H4 nucleosome (Lane 1) and H4K5ac nucleosome (Lane 2).

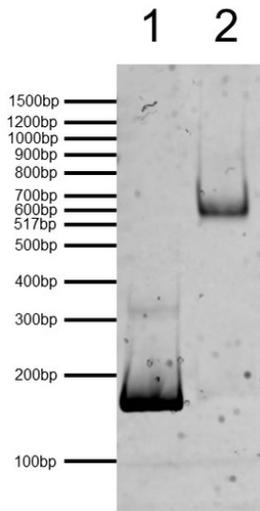


**Mass Spec Data:** Synthetic H4K5ac histone analyzed by ESI-TOF mass spectrometry. Expected mass = 11,320.2 Da. Determined mass = 11,319.6 Da.

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, H4K5ac (1  $\mu$ g) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3.1 and H4K5ac) are indicated.



**DNA Gel Data:** Nucleosome, Recombinant Human, H4K5ac resolved via native PAGE gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (100 ng). **Lane 2:** Intact H4K5ac containing nucleosomes (400 ng).

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