

# Nucleosome, Recombinant Human, H3K9ac dNuc



**Catalog No.** 16-0314  
**Lot No.** 17210001  
**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; H3.2-Q71D13 \*; H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. Histone H3 (created by a proprietary semi-synthetic method) contains acetyl-lysine at position 9. 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.  
\* H3K9ac also has a Cys to Ala substitution at position 110.

## Formulation:

Nucleosome, Recombinant Human, H3K9ac (27.3 µg protein weight, 50 µg total weight) in 33.2 µl of 10 mM Tris HCl, pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol. Molarity = 7.51 µmolar. MW = 200,521 Da.

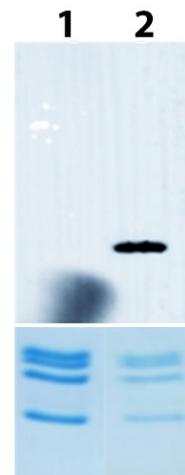
## Storage and Stability:

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

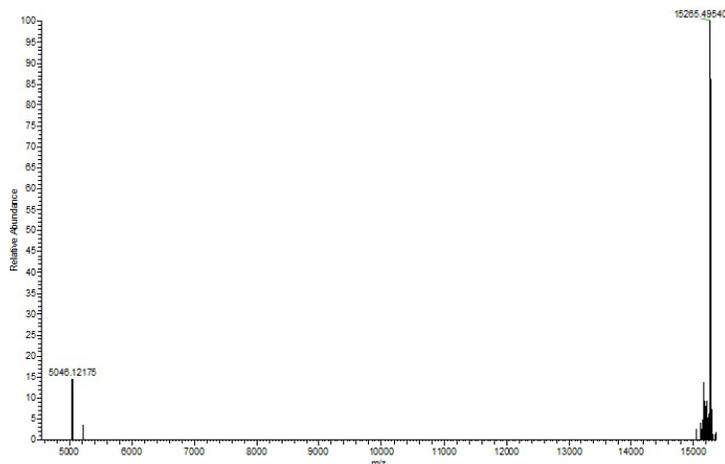
## Application Notes:

Nucleosome, Recombinant Human, H3K9ac dNucs are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein binding experiments. **Nucleosome, Recombinant Human, H3K9ac dNucs from EpiCypher does not contain free DNA which could alter assayed activities.**

## References Using this Product:

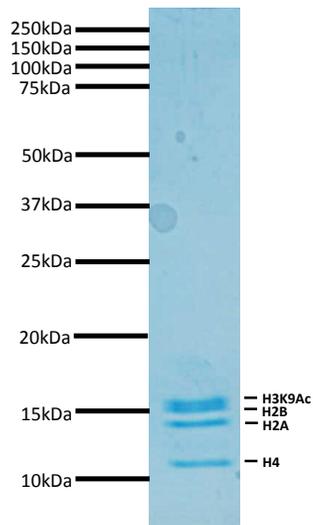


**Western Blot Data:** Western Analysis of Nucleosome, Recombinant Human, H3K9ac. **Top Panel:** Unmodified H3 (Lane 1) and H3K9ac containing nucleosomes (Lane 2) were probed with an anti-H3K9ac antibody and analyzed via ECL readout. Only the H3K9ac sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified nucleosomes (Lane 1) and H3K9ac nucleosomes (Lane 2).

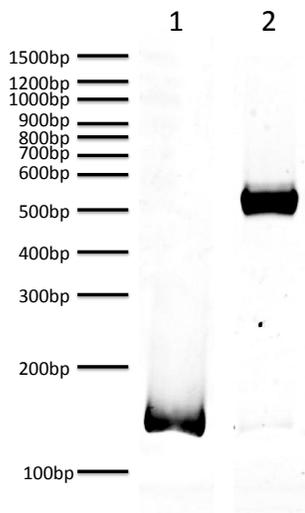


**Mass Spec Data:** H3K9ac protein analyzed by high resolution mass spectrometry. Expected mass = 15266.8 Da. Determined mass = 15,265.5 Da.

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, H3K9ac (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, H3K9ac and H4) are indicated.



**DNA Gel Data:** Nucleosome, Recombinant Human, H3K9ac run on a native PAGE gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA extracted from nucleosomes (200 ng). **Lane 2:** Intact nucleosomes (400 ng).