Nucleosome, Recombinant Human, H4K8ac dNuc, Biotinylated

Catalog No 16-0353
Lot No 21194003-03
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 synthetic method) contains acetyl-lysine at position 8. 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:

H4K8ac dNuc (27.3 µg protein weight, 50 µg DNA + protein) in 54.5 µL of 10 mM Tris HCl pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol. Molarity = 4.59 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.

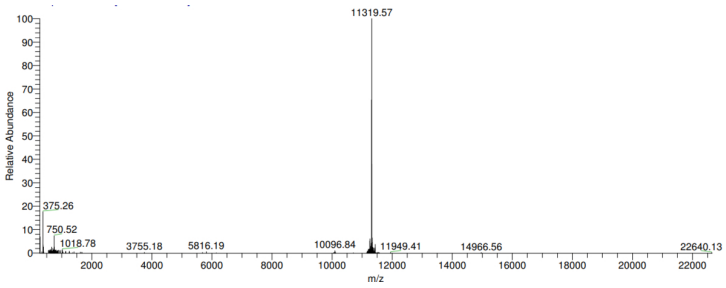
Application Notes:

H4K8ac 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.

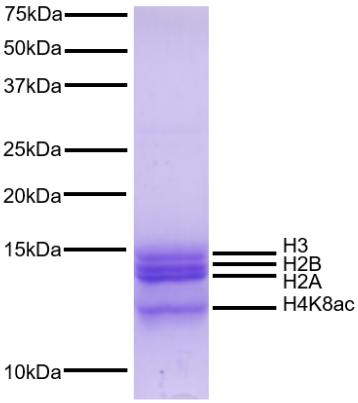
References:

[1] Lowary PT and Widom J (1998) *J Mol Biol* 276:19-42.

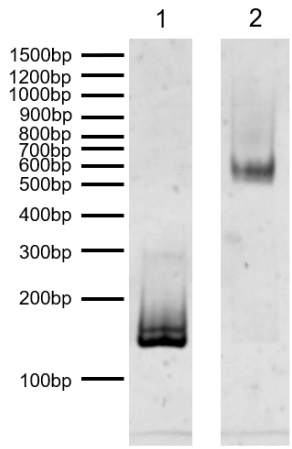
Western Blot Data: Western Analysis of H4K8ac dNuc. **Top Panel:** Unmodified nucleosomes (EpiCypher 16-0006; Lane 1) and H4K8ac nucleosomes (Lane 2) were probed with an anti-H4K8ac antibody and analyzed via ECL readout. Only the H4K8ac sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified nucleosomes (Lane 1) and H4K8ac nucleosomes (Lane 2).



Mass Spec Data: Synthetic H4K8ac histone analyzed by high resolution mass spectrometry. Expected mass = 11,320.2 Da. Determined mass = 11,319.57 Da.



Protein Gel Data: Coomassie stained PAGE gel of proteins in H4K8ac dNuc (1 µg) to demonstrate the purity of histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3.1 and H4K8ac) are indicated.



DNA Gel Data: H4K8ac dNuc resolved via native PAGE gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (EpiCypher 18-0005; 100 ng). **Lane 2:** Intact H4K8ac nucleosomes (400 ng).