Nucleosome, Recombinant Human, H3 K4me1 dNuc

Catalog No. 16-0321

Lot No. 17031002

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-Q71DI3 *; H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. Histone H3 (created by a proprietary semi-synthetic method) contains monomethyl-lysine at position 4. The nucleosome is the basic subunit of chromatin. The 601 sequence, identified by Lowary and Widom, is a 147-base pair sequece that has high affinity for histone octamers and is useful for nucleosome assembly and contains a 5' biotin-TEG group.

* H3.2 K4me1 has a C110A mutation

Formulation:

Nucleosome, Recombinant Human, H3 K4Me1 (27.3 µg protein weight, 50.0 µg DNA+protein) in 31.0 µl 10mM Tris HCl, pH 7.5, 25mM NaCl, 1mM EDTA, 2mM DTT, 20% glycerol. Molarity = 8.04 µmolar. MW = 200,620.

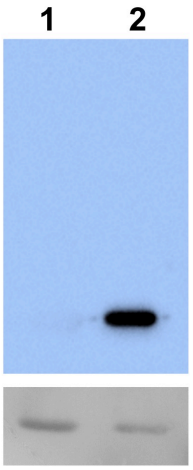
Storage and Stability:

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

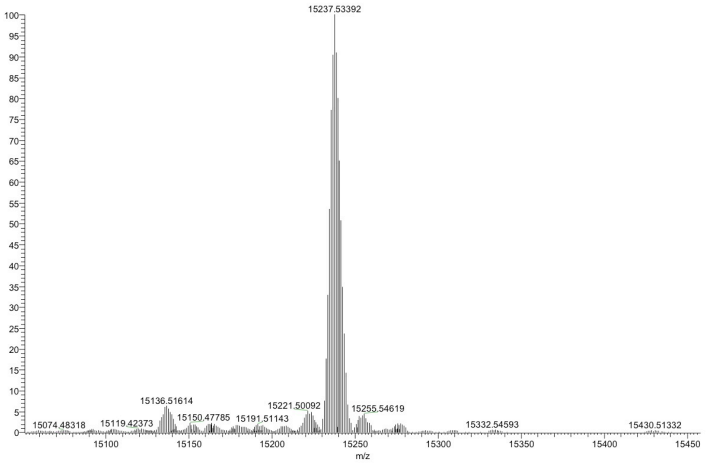
Application Notes:

Nucleosome, Recombinant Human, H3 K4me1 dNucs are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein binding experiments.

References Using this Product:

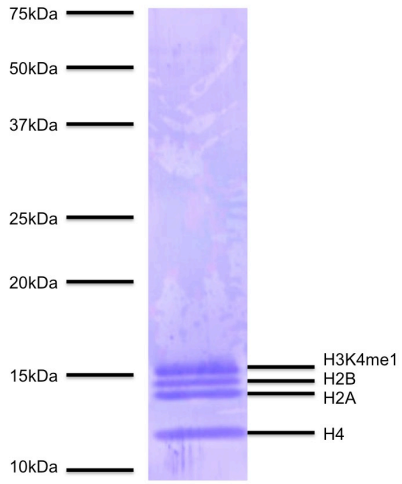


Western Blot Data: Western Analysis of Nucleosome, Recombinant Human, H3 K4Me1. **Top Panel:** Unmodified H3 (Lane 1) and H3 K4Me1 containing nucleosomes (Lane 2) were probed with an anti-H3 K4Me1 antibody and analyzed via ECL readout. Only the H3 K4Me1 sample produced a detectable signal. **Bottom Panel**: Detail from Coomassie stained gel showing rH3 protein (Lane 1) and H3 K4Me1 octamer (Lane 2).

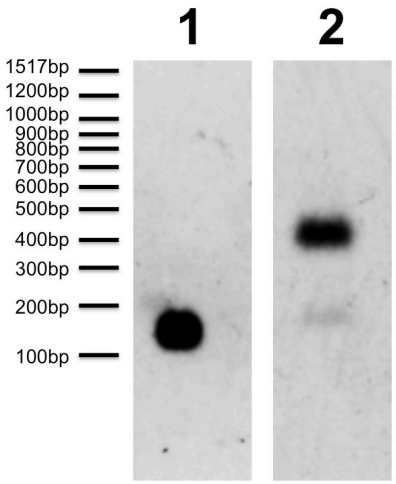


Mass Spec Data: Synthetic H3 K4Me1 protein analyzed by ESI-TOF mass spectrometry. Expected mass = 15,238 Da. Determined mass = 15,237.5 Da.

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, H3 K4Me1 (1 µg) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3 K4Me1 and H4) are indicated.



DNA Gel Data: Nucleosome, Recombinant Human, H3 K4Me1 run on an agarose gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA extracted from nucleosomes (200 ng). **Lane 2:** Intact nucleosomes (400 ng).