Nucleosome, Recombinant Human, H3R2me2s dNuc, Biotinylated

Catalog No. 16-0355

Lot No. 18059001

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 pair of 601 positioning sequence DNA. Histone H3 (created by a proprietary semi-synthetic method) contains symmetrically dimethyl-arginine at position 2. 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 5' biotin-TEG group.

*H3R2me2s has a Cys to Ala substitution at position 110.

Formulation:

Nucleosome, Recombinant Human, H3R2me2s (27.3 µg protein weight, 50 µg total weight) in 65.6 µl of 10 mM Tris HCl, pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol. Molarity = 3.80 µmolar. MW = 200,479 Da.

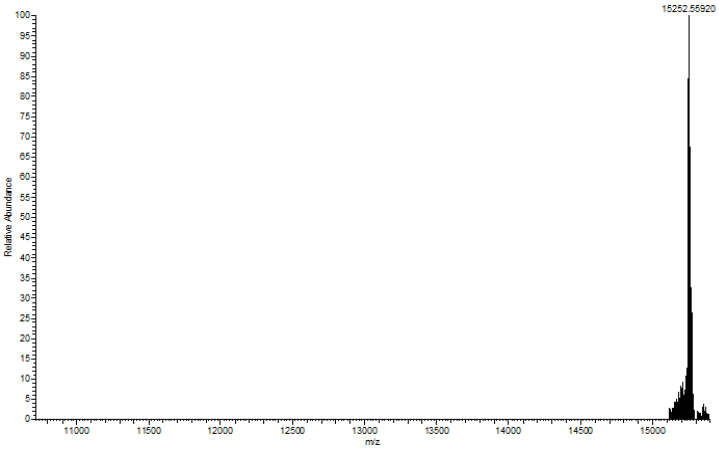
Western Blot Data: Western Analysis of Nucleosome, Recombinant Human, H3R2me2s. **Top Panel:** Unmodified H3 (Lane 1) and H3R2me2s containing nucleosomes (Lane 2) were probed with an anti-H3R2me2s antibody and analyzed via ECL readout. Only the H3R2me2s sample produced a detectable signal. **Bottom Panel**: Detail Coomassie stained gel showing unmodified nucleosomes (Lane 1) and H3R2me2s nucleosomes (Lane 2).

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:

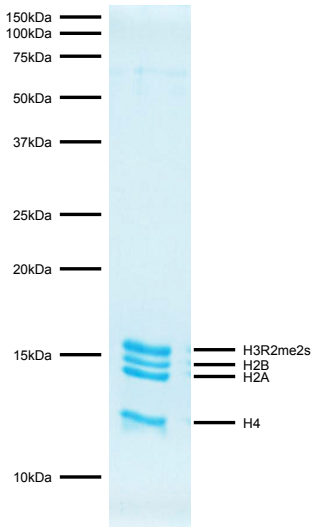
Nucleosome, Recombinant Human, H3R2me2s dNucs are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein binding experiments. **Nucleosome, Recombinant Human, H3R2me2s dNucs from EpiCypher does not contain free DNA which could alter assayed activities.**



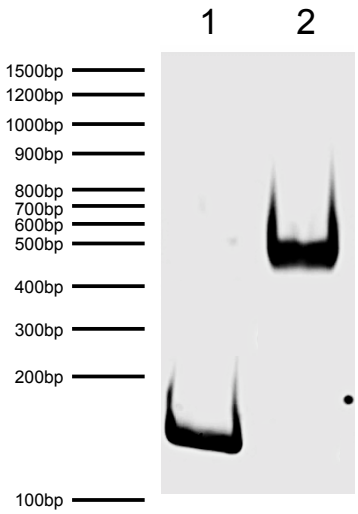
Mass Spec Data: H3R2me2s protein analyzed by high resolution mass spectrometry. Expected mass = 15252.8 Da. Determined mass = 15,252.5 Da.

References:

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



Protein Gel Data: Coomassie stained PAGE gel of proteins in Nucleosome, Recombinant Human, H3R2me2s (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, H3R2me2s and H4) are indicated.



DNA Gel Data: Nucleosome, Recombinant Human, H3R2me2s 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).