Nucleosome, Recombinant Human, H3R8me1 dNuc, Biotinylated

Catalog No. 16-0379
Lot No. 21082002-01
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 monomethylated arginine at position 8. 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.

**H3R8me1 has a Cys to Ala substitution at position 110.*

Formulation:

H3R8me1 dNuc (27.3 µg protein weight, 50 µg total weight) in 50.1 µL of 10 mM Tris HCl, pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol.
Molarity = 5.00 µM. MW = 199,791.06 Da.

Storage and Stability:

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

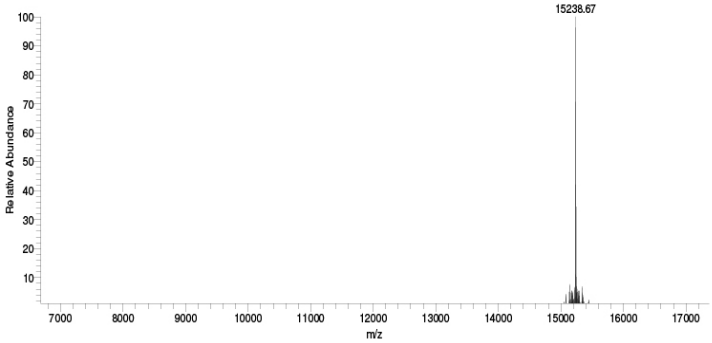
Application Notes:

H3R8me1 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.

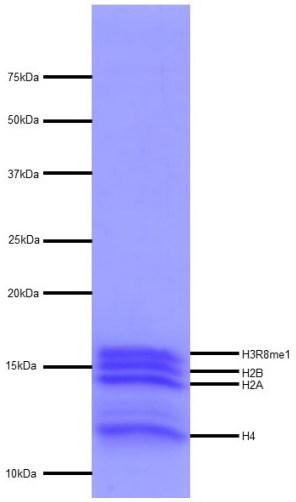
References:

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

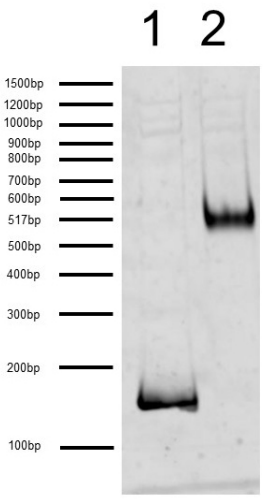
Western Blot Data: Western Analysis of Nucleosome, Recombinant Human, H3R8me1. **Top Panel:** Unmodified H3 (Lane 1) and H3R8me1 containing nucleosomes (Lane 2) were probed with an anti-H3R8me1 antibody and analyzed via ECL readout. Only the H3R8me1 sample produced a detectable signal. **Bottom Panel:** Detail Coomassie stained gel showing unmodified nucleosomes (Lane 1) and H3R8me1 nucleosomes (Lane 2).



Mass Spec Data: H3R8me1 protein analyzed by high resolution mass spectrometry. Expected mass = 15238.8 Da. Determined mass = 15238.67 Da.



Protein Gel Data: Coomassie stained PAGE gel of proteins in Nucleosome, Recombinant Human, H3R8me1 (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, H3R8me1, and H4) are indicated.



DNA Gel Data: Nucleosome, Recombinant Human, H3R8me1 run on a native PAGE gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (100 ng). **Lane 2:** Intact nucleosomes (400 ng).