

Nucleosome, Recombinant Human, H3K9cr dNuc, Biotinylated

Catalog No. 16-0351

Lot No. 21144003-01

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 crotonyl-lysine at position 9. 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.
* H3K9cr has a Cys to Ala substitution at position 110.

Formulation:

Nucleosome, Recombinant Human, H3K9cr (27.3 µg protein weight, 50 µg total weight) in 51.3 µL 10mM Tris HCl pH 7.5, 25mM NaCl, 1mM EDTA, 2mM DTT, 20% glycerol. Molarity = 4.87 µM. MW = 199997.8 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:

H3K9cr 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:

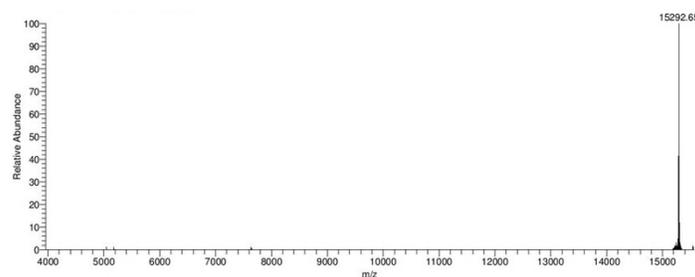
Lowary PT and J Widom (1998). *J Mol Biol* 276: 19-42.
Luger K et al (1999). *Methods Mol Biol* 119: 1-16.



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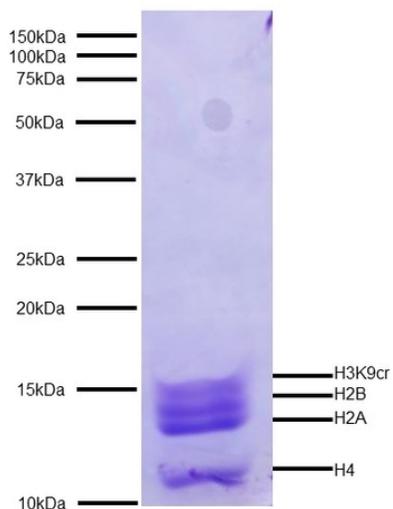


Western Blot Data: Western Analysis of Nucleosome, Recombinant Human, H3K9cr. **Top Panel:** Unmodified H3 (Lane 1) and H3K9cr containing nucleosomes (Lane 2) were probed with an anti-H3K9cr antibody and analyzed via ECL readout. Only the H3K9cr sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified H3 nucleosome (Lane 1) and H3K9cr nucleosome (Lane 2).

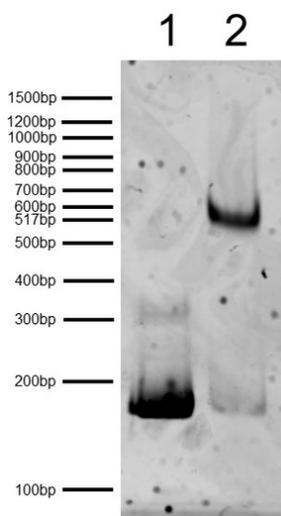


Mass Spec Data: Synthetic H3K9cr histone analyzed by ESI-TOF mass spectrometry. Expected mass = 15,291.8 Da. Determined mass = 15,292.65Da.

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, H3K9cr (1 μ g) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3K9cr and H4) are indicated.



DNA Gel Data: Nucleosome, Recombinant Human, H3K9cr resolved via native PAGE gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (100 ng). **Lane 2:** Intact H3K9cr containing nucleosomes (400 ng).

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