

Nucleosome, Recombinant Human, H2BK120ub dNuc, Biotinylated

Catalog No. 16-0396

Lot No. 20349001-59

Pack Size 25 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 H2B (created by a proprietary semi-synthetic method) contains ubiquitin-lysine at position 120. The nucleosome is the basic subunit of chromatin. The 601 sequence, identified by Lowary and Widom, is a 147-base pair sequence that has high affinity for histone octamers and is useful for nucleosome assembly and contains a 5' biotin-TEG group.

Formulation:

Nucleosome, Recombinant Human, H2BK120ub (14.4 µg protein weight, 25 µg total weight) in 22.5 µL 10mM Tris HCl, pH 7.5, 25mM NaCl, 1mM EDTA, 2mM DTT, 20% glycerol. Molarity = 5.12 µmolar. MW = 216,985.9 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:

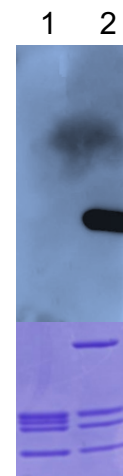
Nucleosome, Recombinant Human, H2BK120ub dNucs are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein binding experiments. **Nucleosome, Recombinant Human, H2BK120ub dNucs from EpiCypher does not contain free DNA which could alter assayed activities.**

References:

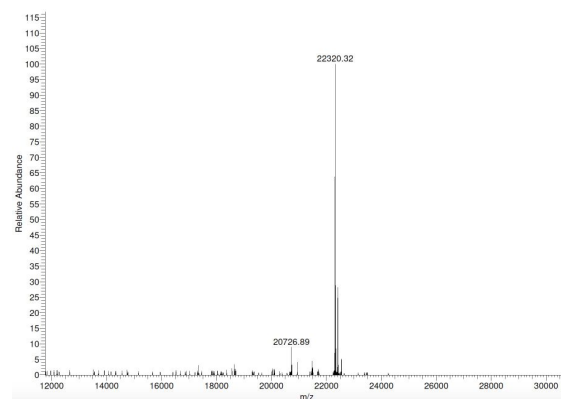
Lowary PT and J Widom (1998). *J Mol Biol* 276: 19-42.
Luger K et al (1999). *Methods Mol Biol* 119: 1-16.



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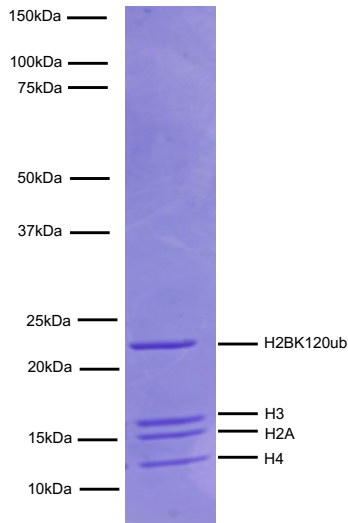


Western Blot Data: Western Analysis of Nucleosome, Recombinant Human, H2BK120ub. **Top Panel:** Unmodified H3 (Lane 1) and H2BK120ub containing nucleosomes (Lane 2) were probed with an anti-H2BK120ub antibody and analyzed via ECL readout. Only the H2BK120ub sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified nucleosomes (Lane 1) and H2BK120ub nucleosomes (Lane 2).

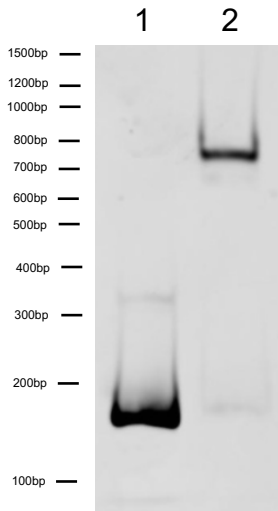


Mass Spec Data: Semi-synthetic H2BK120ub protein analyzed by nanospray-orbitrap high resolution mass spectrometry. Expected mass = 22321.8 Da. Determined mass = 22320.3 Da.

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, H2BK120ub (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, H2BK120ub, H3 and H4) are indicated.



DNA Gel Data: Nucleosome, Recombinant Human, H2BK120ub dNucs resolved via native PAGE and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (100 ng). **Lane 2:** Intact H2BK120ub nucleosome (400 ng).

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