

Nucleosome, Recombinant Human, H3.1S28phos dNuc, Biotinylated

Catalog No. 16-0388
Lot No. 19291001-19
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; H3.1-P68431; H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. Histone H3 (created by a proprietary synthetic method) contains phosphoserine at position 28. 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, H3.1S28phos (27.4 µg protein weight, 50 µg DNA+protein) in 51.5 µl 10 mM Tris HCl, pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol.

Molarity = 4.85 µmolar. MW = 200,019.4 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:

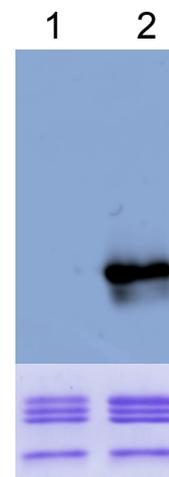
Nucleosome, Recombinant Human, H3.1S28phos dNucs are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein binding experiments. **Nucleosome, Recombinant Human, H3.1S28phos dNucs from EpiCypher does not contain free DNA which could alter assayed activities.**

References:

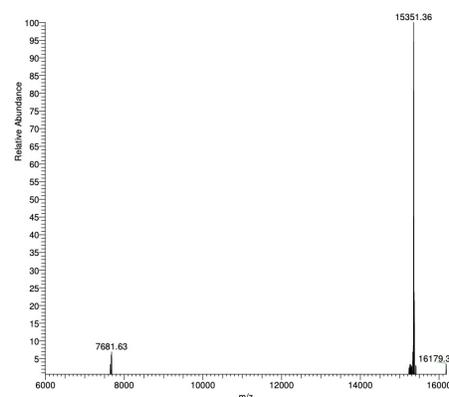
Lowary PT and J Widom (1998). *J Mol Biol* 276: 19-42.
Luger K et al (1999). *Methods Mol Biol* 119: 1-16.



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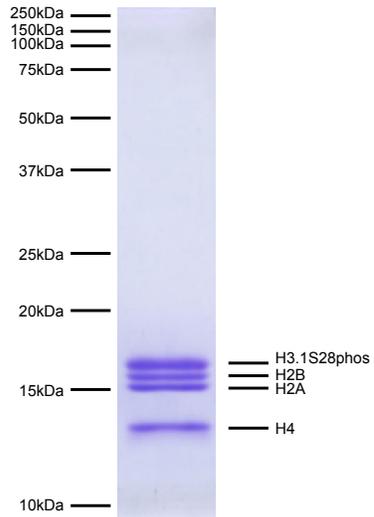


Western Blot Data: Western Analysis of Nucleosome, Recombinant Human, H3.1S28phos. **Top Panel:** Unmodified H3 (Lane 1) and H3.1S28phos containing nucleosomes (Lane 2) were probed with an anti-H3.1S28phos antibody and analyzed via ECL readout. Only the H3.1S28phos sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified nucleosomes (Lane 1) and H3.1S28phos nucleosomes (Lane 2).

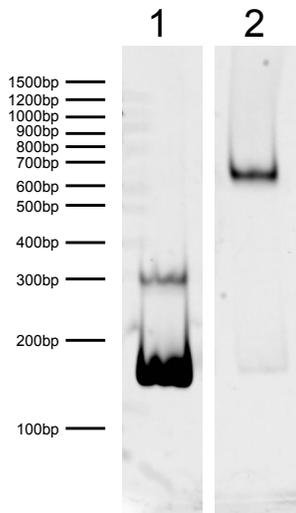


Mass Spec Data: H3.1S28phos protein analyzed by high resolution mass spectrometry. Expected mass = 15352.9 Da. Determined mass = 15351.36 Da.

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, H3.1S28phos (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, H3.1S28phos and H4) are indicated.



DNA Gel Data: Nucleosome, Recombinant Human, H3.1S28phos 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).

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