

Nucleosome, Recombinant Human, H3.3K36me3 dNuc, Biotinylated

Catalog No 16-0390

Lot No 21168002-61

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; H3.3-P84243; H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. Histone H3 (created by a proprietary synthetic method) contains trimethylated lysine at position 36. The nucleosome is the basic subunit of chromatin. The 147 bp 601 sequence, identified by Lowary and Widom [1], has high affinity for histone octamers and is useful for nucleosome assembly. The DNA contains a 5' biotin-TEG group.

Formulation:

H3.3K36me3 dNuc (27.4 µg protein weight, 50 µg DNA +protein) in 56.8 µL 10 mM Tris HCl pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol. Molarity = 4.4 µM. MW = 199,749.4 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:

H3.3K36me3 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:

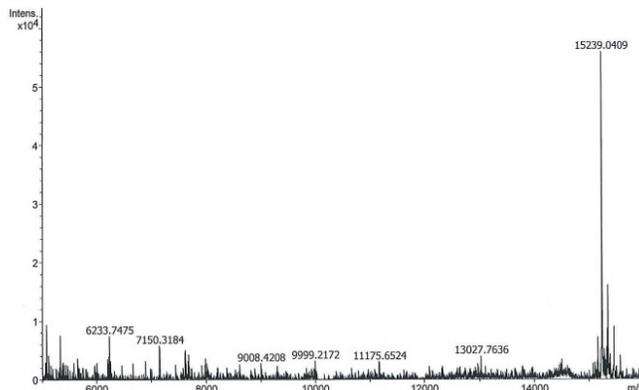
[1] Lowary PT and Widom J (1998) *J Mol Biol* 276:19-42.



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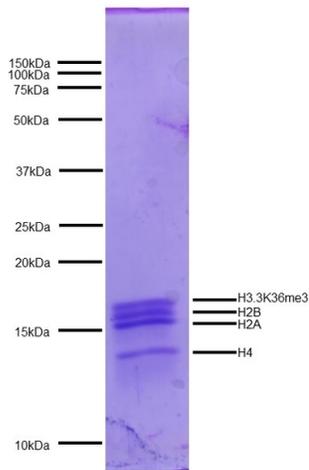


Western Blot Data: Western Analysis of H3.3K36me3 dNuc. **Top Panel:** Unmodified H3 (Lane 1) and H3.3K36me3 nucleosomes (Lane 2) were probed with an anti-H3.3K36me3 antibody and analyzed via ECL readout. Only the H3.3K36me3 sample produced a detectable signal. **Bottom Panel:** Detail from Coomassie stained gel showing unmodified H3 nucleosome (Lane 1) and H3.3K36me3 nucleosome (Lane 2).

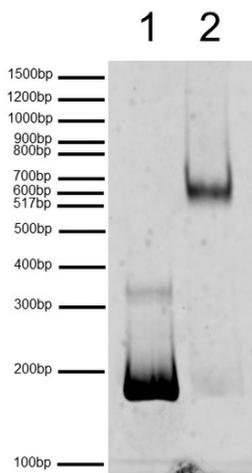


Mass Spec Data: Synthetic H3.3K36me3 histone analyzed by high resolution mass spectrometry. Expected mass = 15238.72 Da. Determined mass = 15239.04 Da.

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 H3.3K36me3 dNuc (1 µg) to demonstrate the purity of histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3.3K36me3 and H4) are indicated.



DNA Gel Data: H3.3K36me3 dNuc resolved via native PAGE gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (100 ng). **Lane 2:** Intact H3.3K36me3 nucleosomes (400 ng).

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