

Mononucleosomes (H3.3 Δ N32), Human Recombinant Biotinylated



EpiCypher[®]

Catalog No 16-0017
Lot No 19218002
Pack Size 50 μ g

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), with the amino acid sequence of H3 beginning with glycine 33 (amino acids 1-32 are deleted), wrapped by 147 base pairs of 601 positioning sequence DNA. 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:

Purified recombinant mononucleosomes (50 μ g total mass, 27.4 μ g protein) in 53.5 μ L 10 mM Tris-HCl pH 7.5, 1 mM EDTA, 25 mM NaCl, 2 mM DTT, & 20% glycerol. Concentration of nucleosomes is 4.84 μ M. Nucleosome molecular weight = 193,035.76 Da.

Application Notes:

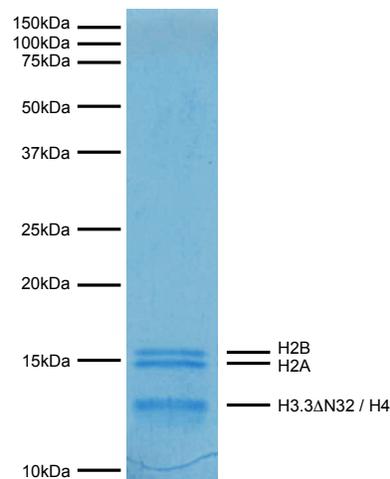
Mononucleosomes (H3.3 Δ N32), Human Recombinant Biotinylated are highly purified and suitable for use as substrates in enzyme screening assays, structural studies, or effector protein binding experiments. The N-terminal deletion allows for the study of the role of the N-terminus in many aspects of chromatin biology.

Storage and Stability:

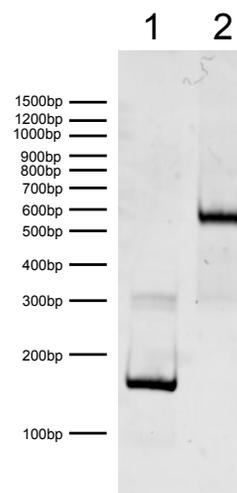
Stable for six (6) months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.

References:

[1] Lowary & Widom *J. Mol. Biol.* (1998). PMID: 9514715

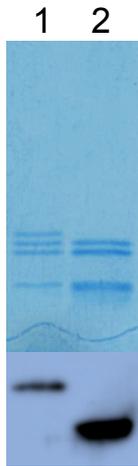


Protein Gel Data: Coomassie stained PAGE gel of proteins in Mononucleosomes (H3.3 Δ N32), Human Recombinant Biotinylated (1 μ g) demonstrates the purity of histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3.3 Δ N32 and H4) are indicated. H3.3 Δ N32 and H4 co-migrate.



DNA Gel Data: Mononucleosomes (H3.3 Δ N32), Human Recombinant Biotinylated run on an agarose gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (100 ng). **Lane 2:** Intact nucleosomes (400 ng).

This product is for *in vitro* research use only and is not intended for use in humans or animals.



Western Blot Data: Western analysis of Nucleosome (H3.3 Δ N32), Human Recombinant Biotinylated. **Top Panel:** Wild type (Lane 1) and H3.3 Δ N32-containing nucleosomes (Lane 2) were probed with an anti-H3 COOH-terminal antibody and analyzed via ECL readout. **Bottom Panel:** Detail from Coomassie stained gel showing histones from H3.1 WT (Lane 1) and H3.3 Δ N32 nucleosomes (Lane 2).

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