

Mononucleosomes (H3.3), Human Recombinant



EpiCypher®

Catalog No. 16-0012
Lot No. 20303004-29
Pack Size 100 µg

Product Description:

Mononucleosomes assembled from recombinant human histones expressed in *E. coli* (two each of histones H2A, H2B, H3.3 and H4; accession numbers: H2A-P04908; H2B-O60814; H3.3-P84243; H4-P62805) wrapped by 147 base pairs of 601 sequence DNA. The nucleosome is the basic subunit of chromatin. The 601 sequence, identified by Lowary and Widom, has high affinity for histone octamers and is useful for nucleosome assembly.

Formulation:

Purified recombinant mononucleosomes (54.6 µg protein by mass, 100 µg protein+DNA in 98.4 µl) in 10 mM Tris-HCl pH 7.5, 1 mM EDTA, 25 mM NaCl, 2 mM DTT, & 20% glycerol. Concentration of nucleosomes is 5.02 µM. Nucleosome molecular weight = 199,225.4 Da.

Storage and Stability:

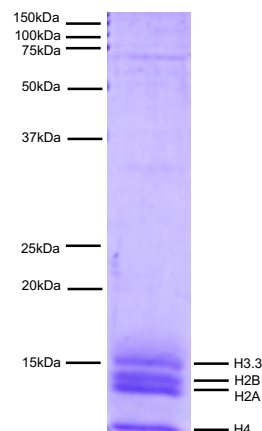
Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.

Application Notes:

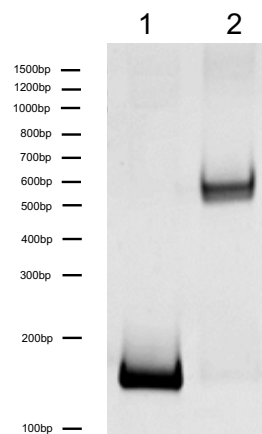
Recombinant mononucleosomes are highly purified and are suitable for use as substrates in enzyme screening assays or for nucleosome binding experiments. The absence of post-translational histone modifications makes them ideal for conducting enzyme activity and screening assays. **EpiCypher Mononucleosomes (H3.3), Human Recombinant do 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.



Protein Gel Data: Coomassie stained PAGE gel of proteins in Mononucleosomes (H3.3), Human Recombinant (1 µg) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3.3 and H4) are indicated.



DNA Gel Data: Mononucleosomes (H3.3), Human Recombinant run on native PAGE and stained with ethidium bromide to visualize DNA. **Lane 1:** Free 601 sequence DNA extracted from nucleosomes (100 ng). **Lane 2:** Fully assembled nucleosomes (400 ng).

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