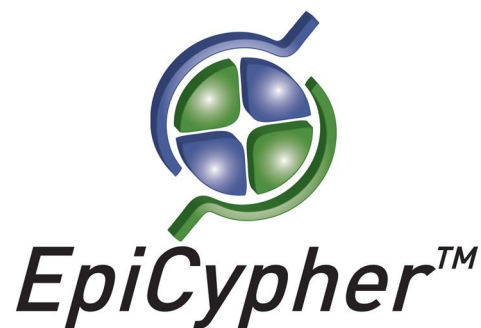


# Mononucleosomes (H3.3K27M), Recombinant Human, Biotinylated

**Catalog No.** 16-1323  
**Lot No.** 17276001  
**Pack Size** 50 µg



## Product Description:

Recombinant human histone H3.3 (H3F3A, H3.3A, H3F3, accession P84243) containing a methionine at position 27, expressed in *E. coli*. Histone H3 is one of the four proteins that are present in the nucleosome, the basic repeating unit subunit of chromatin, consisting of 147 base pairs of DNA wrapped around an octamer of core histone proteins (H2A, H2B, H3 and H4). H3.3 is a histone variant, found in regions of high chromatin turnover outside of S-phase (e.g. at actively transcribed genes). The substitution of M for K at position 27 in human H3.1 and H3.3 is a dominant negative inhibitor of the EZH2 methyltransferase complex PRC2 and associated with pediatric brain cancer (DIPG). 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:

Mononucleosomes (H3.3K27M), Recombinant Human, Biotinylated (27.5 µg protein weight, 50.0 µg DNA+ protein) in 92.6 µl 10mM Tris HCl, pH 7.5, 25mM NaCl, 1 mM EDTA, 2mM DTT, 20% glycerol. MW = 200,543. Molarity = 5.50 µmolar.

## 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:

Mononucleosomes (H3.3K27M), Recombinant Human, Biotinylated are highly purified and are suitable for use as substrates in enzyme screening assays, structural studies or for effector protein binding experiments.

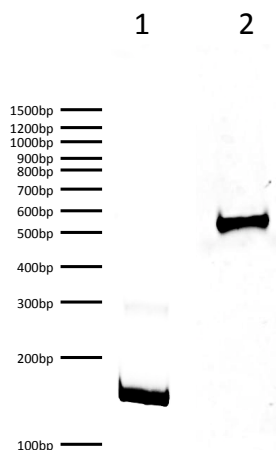
**Mononucleosomes (H3.3K27M), Recombinant Human, Biotinylated from EpiCypher do not contain free DNA which could alter assayed activities.**

## References:



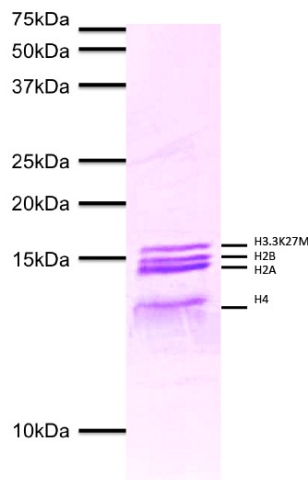
**Western Blot Data:** Western analysis of Mononucleosomes (H3.3K27M), Recombinant Human, Biotinylated. **Top:** Wildtype H3.3 (Lane 1) and H3.3K27M containing nucleosomes (Lane 2) were probed with anti-H3K27M antibody. Only H3.3K27M produced a detectable signal.

**Bottom:** Detail from Coomassie stained gel of Western blot.



## DNA Gel Data:

Mononucleosomes (H3.3K27M), Recombinant Human, Biotinylated run using native PAGE and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA extracted from nucleosomes (200 ng). **Lane 2:** Intact nucleosomes (400 ng).



**Protein Gel Data:** Coomassie stained PAGE gel of proteins in Mononucleosomes (H3.3K27M), Recombinant Human (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, H3.3K27M and H4) are indicated.

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