

Recombinant Human Mononucleosomes (H3.3G34V), Biotinylated

Cat. No. NUC-050 **Lot. No.** (See product label)

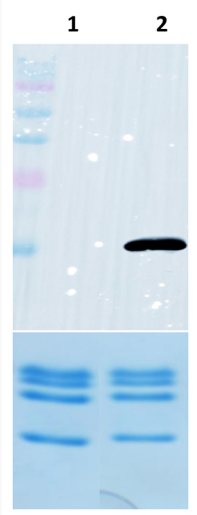
SPECIFICATION

Product Overview	Recombinant human histone H3.3 (H3F3A, H3.3A, H3F3, accession P84243) containing a methionine at position 4, expressed in E. coli.
Species	Human
Source	E.coli
Description	Recombinant human histone H3.3 (H3F3A, H3.3A, H3F3, accession P84243) containing a methionine at position 4, 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, a non-allelic replacement histone found in regions of high chromatin turnover outside of S-phase (e.g. at actively transcribed genes). The substitution of V for G at position 34 is associated with pediatric diffuse intrinsic pontine gliomas (DIPGs) with and diminished levels of H3K36 methylation. 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.
Form	Mononucleosomes (H3.3G34V), Recombinant Human (27.3 g protein weight, 50 g DNA+protein) in 10 mM Tris HCl, pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol.

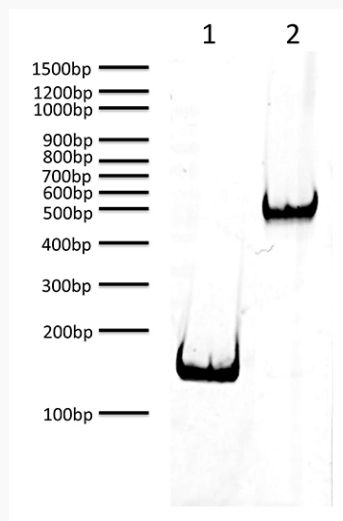
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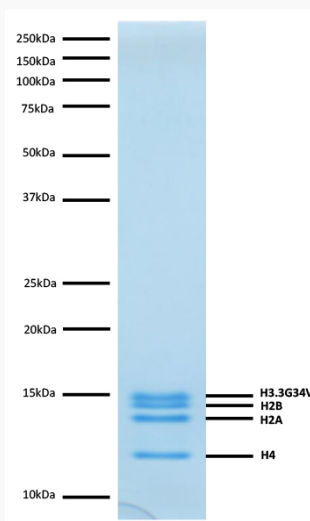
Molecular Mass	200,621 Da
Applications	Mononucleosomes (H3.3G34V), Recombinant Human are highly purified and suitable for use as substrates in enzyme screening assays, structural studies, or effector protein binding experiments. Mononucleosomes (H3.3G34V), Recombinant Human do not contain free DNA which could alter assayed activities.
Storage	Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.
Conjugation	Biotin
Western Blot Data	 Western analysis of Mononucleosomes (H3.4G34V), Recombinant Human. Top Panel: Wildtype H3.3 (Lane 1) and H3.3G34V containing nucleosomes (Lane 2) were probed with an anti-H3.3G34V antibody. Only the H3.3G34V sample produced a detectable signal. Bottom Panel: Detail from Coomassie stained gel of Western blot.

DNA Gel Data



Mononucleosomes (H3.3G34V), Recombinant Human resolved by Native PAGE and stained with ethidium bromide to visualize DNA. Lane 1: Free DNA (100 ng). Lane 2: Intact nucleosomes (400 ng).

Protein Gel Data



Coomassie stained PAGE gel of proteins in Mononucleosomes (H3.3 G34V),

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Recombinant Human (1 g) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3.3G34V and H4) are indicated.

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