

Recombinant Human Mononucleosomes (H3.3 K27M), Biotinylated

Cat. No. NUC-047 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human histone H3.3 (H3F3A, H3.3A, H3F3, accession P84243) containing a methionine at position 27, 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 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.
Form	Purified recombinant mononucleosomes in 10mM Tris-HCl pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol.
Molecular Mass	242,900 Da

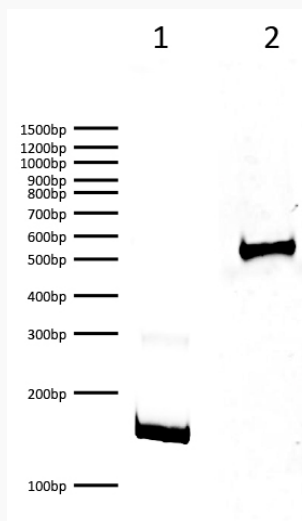
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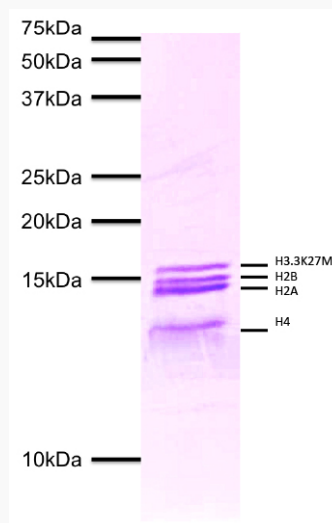
Applications	This product is a substrate for chromatin remodeling assays using restriction enzymes to determine accessibility of GATC subsequent to chromatin remodeling.
Storage	Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.
Conjugation	Biotin
Western Blot Data	 Coomassie stained PAGE gel of proteins in Mononucleosomes (H3.3K27M), Recombinant Human, Biotinylated (2 g) demonstrates the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3 and H4) are indicated.

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). Note absence of free DNA in "Nuc", indicating all DNA complexed with histones.

Protein Gel Data



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Coomassie stained PAGE gel of proteins in Mononucleosomes (H3.3K27M), 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, H3.3K27M and H4) are indicated.

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