

Mononucleosomes H3K27me3 Recombinant Protein | H3K27me3 recombinant protein

Recombinant Mononucleosomes H3K27me3 (MLA)-biotin

CATALOG # AAA60151	HOST E Coli
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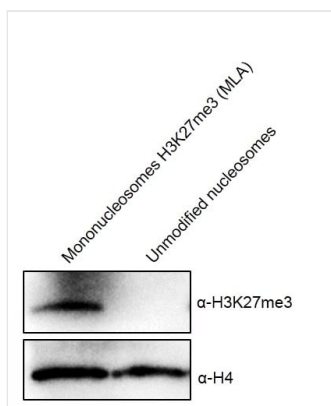
PRODUCT SYNONYMS

Mononucleosomes H3K27me3; Recombinant Mononucleosomes H3K27me3 (MLA)-biotin; H3K27me3 recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli
Form/Format	Recombinant Mononucleosomes H3K27me3 (MLA)-biotin (20ug protein + 20ug DNA) are supplied in 10mM Tris-HCl pH8.0, 1mM EDTA, 2mM DTT, and 20% glycerol.
Protein Species	Human
Conjugation	Biotinylated, Methylated
Notes	Recombinant histones are suitable for use as positive controls in the analysis of histone posttranslational modifications, as substrates for histone modification enzymes, or to generate chromatin in vitro.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



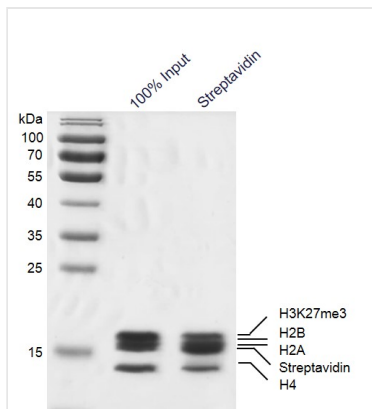
WB (Western Blot)

Western Blot analysis for Recombinant Mononucleosomes H3K27me3 (MLA) - biotin. Recombinant Mononucleosomes (Lane 1) and unmodified nucleosomes (Lane 2) were detected with H3K27me3 antibody and H4 antibody, respectively. H4 was detected as loading control. Only Recombinant Mononucleosomes H3K27me3 (MLA) - biotin can be detected by anti-H3K27me3 antibody.



Application Data

Recombinant Mononucleosomes H3K27me3 (MLA) - biotin agarose gel. Recombinant Mononucleosomes were run on a 2% agarose gel and stained with ethidium bromide. Lane 1: DNA marker. Lane 2: 601 DNA. Lane 3: Intact mononucleosomes H3K27me3. Intact mononucleosomes H3K27me3 migrated much higher than free 601 DNA. The agarose gel shows that almost all of 601 DNA wrap histone octamers to form nucleosomes.



SDS-PAGE
 Streptavidin pull-down for Recombinant Mononucleosomes H3K27me3 (MLA) – biotin
 Recombinant Mononucleosomes were pulled down by streptavidin beads. Input nucleosomes (Lane 2) and the nucleosomes (Lane 3) pulled down by streptavidin were run on a 12.5% SDS-PAGE gel and stained with Coomassie blue. The SDS-PAGE gel result shows that most of biotinylated mononucleosomes H3K27me3 (MLA) are pulled down by streptavidin beads.

ADDITIONAL INFORMATION

Related Product Information for H3K27me3 recombinant protein	Short Description: Recombinant Mononucleosomes H3K27me3 (MLA)-biotin consist of a 167 bp of 601 DNA with a 5'-biotin tag and two molecules each of histones H2A that includes amino acids 1-130 (end)(accession number NM_003512), H2B that includes amino acids 1-126 (end)(accession number NM_003518), H3 trimethyl Lys27 (H3K27me3)(MLA) that includes amino acids 1-136 (end)(accession number NP_003520.1) with two substitutions (cysteine to serine at amino acid 96 and cysteine to alanine at amino acid 110), and H4 that includes amino acids 1-103 (end)(accession number NM_003548). All of these histones were expressed in E Coli. The molecular weight of histone octamer is 108 kDa. Nucleosomes comprise the smallest subunit of chromatin; they consist of 147 bp of DNA wrapped around an octamer of core histone proteins (H2A, H2B, H3 and H4). Therefore, nucleosomes are more physiologically relevant substrates than histones and histone-derived peptides for use in in vitro studies. More importantly, some histone methyltransferases are significantly more active, as well as specific, when using nucleosomal substrates in HMT assays, such as DOT1L and NSD family enzymes. Nucleosomes are also widely used in histone methyltransferase screening assays to identify small molecular inhibitors for drug discovery. Background: Histone H3 is one of the core components of the nucleosome. The nucleosome is the smallest subunit of chromatin and consists of 146 base pairs of DNA wrapped around an octamer of core histone proteins (two each of H2A, H2B, H3 and H4). Histone H1 is a linker protein, present at the interface between the nucleosome core and DNA entry/exit points. Recombinant Histone H3K27me3 (MLA) has been generated using the patented Methylated Lysine Analog (MLA) technology. In MLA, methylated histones are generated via a chemical alkylation reaction that substitutes a methylated analog of lysine, aminoethylcysteine, for the existing lysine at the desired residue. Aminoethylcysteine is structurally and chemically similar to lysine, though it contains a sulfide substitution in place of the lysine g-methylene. The MLA technique provides precise control over the site and degree of methylation. The MLA technology is covered under U.S. Patent No. 8,278,112.
Product Categories/Family for H3K27me3 recombinant protein	Recombinant Proteins; Histone

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504281
NCBI GeneID	8350
NCBI Accession #	NP_003520.1
NCBI GenBank Nucleotide #	NM_003512
UniProt Accession #	P68431; P02295; P02296; P16106; Q6ISV8; Q6NWP8; Q6NWP9; Q6NXU4; Q71DJ3; Q93081; A0PJT7; A5PLR1
Molecular Weight	15,404 Da
NCBI Official Full Name	histone H3.1

NCBI Official Synonym Full Names	histone cluster 1, H3a
NCBI Official Symbol	HIST1H3A
NCBI Official Synonym Symbols	H3/A; H3FA
NCBI Protein Information	histone H3.1; histone H3/a; histone 1, H3a; H3 histone family, member A
UniProt Protein Name	Histone H3.1
UniProt Gene Name	HIST1H3A
UniProt Synonym Gene Names	H3FA
UniProt Entry Name	H31_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hist1h3a-recombinant-protein-e-coli/60151>