

Mononucleosomes H3K9me3 Recombinant Protein | H3K9me3 recombinant protein

Recombinant Mononucleosomes H3K9me3 (EPL)-biotinylated

CATALOG # AAA59746	HOST E Coli
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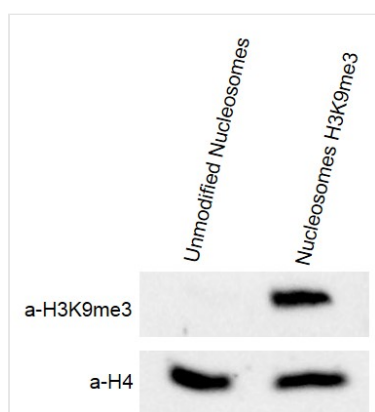
PRODUCT SYNONYMS

Mononucleosomes H3K9me3; Recombinant Mononucleosomes H3K9me3 (EPL)-biotinylated; H3K9me3 recombinant protein

PRODUCT SPECIFICATIONS

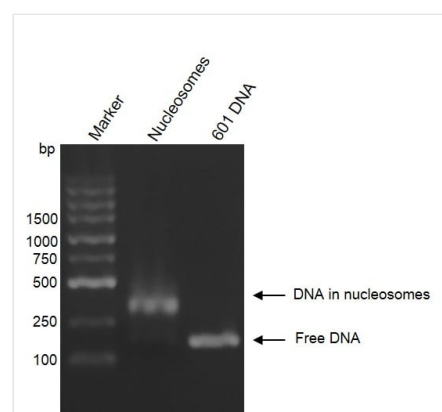
Host	E Coli
Purity/Purification	The recombinant protein is >=95% by SDS-PAGE gel.
Form/Format	Recombinant Mononucleosomes H3K9me3 (EPL)-biotinylated (20ug protein + 20ug DNA) is supplied at a protein concentration of 0.35ug/ul in 10mM Tris-HCl, pH8.0, 1mM EDTA, 2mM DTT and 20% glycerol.
Protein Species	Human
Conjugation	Methylated, Biotinylated
Notes	Recombinant Nucleosome H3K9me3 (EPL) is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.
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



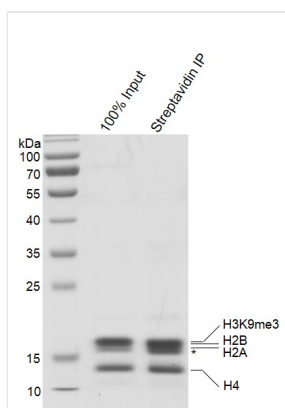
WB (Western Blot)

Western Blot analysis for Recombinant Mononucleosomes H3K9me3 (EPL) - biotin. Unmodified nucleosomes (Lane 1) and Recombinant Mononucleosomes H3K9me3 (EPL) - biotinylated (Lane 2) were detected with anti-H3K9me3 antibody and anti-H4 antibody, respectively. H4 was detected as loading control. Only Recombinant Mononucleosomes H3K9me3 (EPL) - biotinylated can be detected by anti-H3K9me3 antibody.



Application Data

Recombinant Mononucleosomes H3K9me3 (EPL) - biotin, DNA gel. Recombinant Mononucleosomes H3K9me3 (EPL) - biotinylated were run on a 2% agarose gel and stained with ethidium bromide. Lane 1: DNA marker. Lane 2: Intact mononucleosomes H3K9me3. Lane 3: 601 DNA. Intact mononucleosomes H3K9me3 migrated much higher than free 601 DNA. The agarose gel result shows almost all of 601 DNA wrap histone octamers to form nucleosomes.



SDS-PAGE

Streptavidin pull-down for Recombinant Mononucleosomes H3K9me3 (EPL) - biotin. Recombinant Mononucleosomes H3K9me3 (EPL) - biotin were pulled down by streptavidin beads. Input nucleosomes (Lane 2) and the nucleosomes (Lane 3) pulled down by streptavidin were run on a 13% SDS-PAGE gel and stained with Commassie blue. The SDS-PAGE gel result shows that almost all of biotinylated mononucleosomes H3K9me3 are pulled down by streptavidin beads. * indicates streptavidin.

ADDITIONAL INFORMATION

Related Product Information for H3K9me3 recombinant protein	Short Description: Recombinant Mononucleosomes H3K9me3 (EPL)-biotinylated consist of a 167 bp of 601 DNA with 5' biotin tag and two molecules each of histones H2A that includes amino acids 1-130 (end)(accession number NP_003503.1), H2B that includes amino acids 1-126 (end)(accession number NP_003509.1), H3.2 that includes amino acids 1-136 (end)(accession number NP_066403.2) with trimethylation at lysine 9, and H4 that includes amino acids 1-103 (end)(accession number NP_003539.1). All of these histones were expressed in E Coli. The molecular weight of histone octamer is ~108 kDa. The recombinant protein is >=95% by SDS-PAGE gel. H3K9me3 (Histone H3 trimethyl Lys9) protein is generated using expressed protein ligation (EPL) technology. Truncated human Histone H3.2 is produced in E Coli and purified using FPLC. The purified protein is subsequently ligated to an N-terminal histone tail peptide containing trimethyl lysine 9 via a native peptide bond. Background: In vivo, histones are wrapped around by DNA in chromatin. Therefore, nucleosomes are more physiologically relevant substrates than histones and histone-derived peptides for in vitro studies. More importantly, some histone methyltransferases are significantly more active, as well as specific, when using nucleosomal substrates in Histone Methyltransferase (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.
Product Categories/Family for H3K9me3 recombinant protein	Recombinant Proteins; Histone

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504245
NCBI GeneID	8334
NCBI Accession #	NP_003503.1; NP_003509.1; NP_066403.2; NP_003539.1
NCBI GenBank Nucleotide #	NM_003512.3
UniProt Accession #	Q93077; O00775; O00776; O00777; O00778; Q540R1; B2R4F7
Molecular Weight	14,105 Da
NCBI Official Full Name	histone H2A type 1-C
NCBI Official Synonym Full Names	histone cluster 1 H2A family member c
NCBI Official Symbol	HIST1H2AC
NCBI Official Synonym Symbols	H2A/I; H2AFL; dJ221C16.4

NCBI Protein Information	histone H2A type 1-C
UniProt Protein Name	Histone H2A type 1-C
UniProt Gene Name	HIST1H2AC
UniProt Synonym Gene Names	H2AFL

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/hist1h2ac-recombinant-protein-e-coli/59746>