

## Mononucleosomes H3K4me1 Recombinant Protein | H3K4me1 recombinant protein

Recombinant Mononucleosomes H3K4me1 (EPL)-biotinylated

|                              |                       |
|------------------------------|-----------------------|
| CATALOG #<br><b>AAA59764</b> | HOST<br><b>E Coli</b> |
|------------------------------|-----------------------|

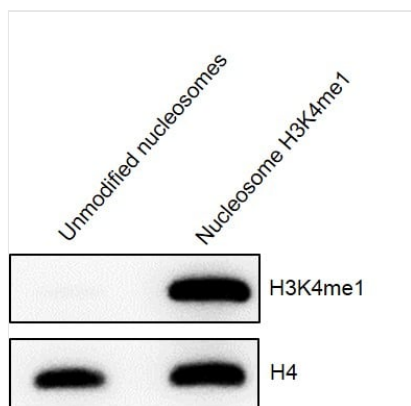
### PRODUCT SYNONYMS

Mononucleosomes H3K4me1; Recombinant Mononucleosomes H3K4me1 (EPL)-biotinylated; H3K4me1 recombinant protein

### PRODUCT SPECIFICATIONS

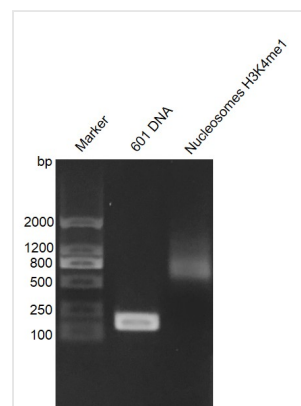
|                         |                                                                                                                                                                                                                        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | E Coli                                                                                                                                                                                                                 |
| Form/Format             | Recombinant Mononucleosomes H3K4me1-biotinylated (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 Mononucleosomes H3K4me1 (EPL)-biotinylated 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.<br>Shipping Temp: Dry Ice |

### IMAGES



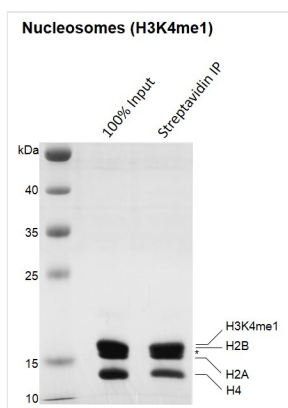
#### WB (Western Blot)

Western Blot analysis for Recombinant Mononucleosomes H3K4me1 (EPL) - biotinylated. Unmodified mononucleosomes (Lane 1) and Mononucleosomes H3K4me1 (Lane 2) were detected with anti-H3K4me1 antibody and anti-H4 antibody, respectively. H4 was detected as loading control. Only Mononucleosomes H3K4me1 can be detected by anti- H3K4me1 antibody. Nucleosomes = Mononucleosomes



#### Application Data

Recombinant Mononucleosomes H3K4me1 (EPL) - biotinylated, DNA gel. Mononucleosomes H3K4me1 (EPL) - biotinylated, were run on a 2% agarose gel and stained with ethidium bromide. Lane 1: DNA marker. Lane 2: 601 DNA. Lane 3: Intact mononucleosomes. Intact mononucleosomes migrate much higher than free 601 DNA. The agarose gel result shows almost all of 601 DNA wraps histone octamers to form mononucleosomes. Nucleosomes = Mononucleosomes



### SDS-PAGE

Streptavidin pull-down for Recombinant Mononucleosomes H3K4me1 (EPL) - biotinylated. Mononucleosomes H3K4me1 (EPL) - biotinylated, were pulled down by streptavidin beads. Input mononucleosomes (Lane 1) and the mononucleosomes (Lane 2) 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 almost all of biotinylated polynucleosomes H3K4me1 are pulled down by streptavidin beads. \* indicates streptavidin. Nucleosomes = Mononucleosomes

## ADDITIONAL INFORMATION

|                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for H3K4me1 recombinant protein</b> | <p>Short Description: Recombinant Mononucleosomes H3K4me1 (EPL)-biotinylated, consist of 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 monomethylation at lysine 4, 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. H3K4me3 (Histone H3 monomethyl Lys4) proteins are 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 monomethyl lysine 4 via a native peptide bond.</p> <p>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 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.</p> |
| <b>Product Categories/Family for H3K4me1 recombinant protein</b>   | <a href="#">Recombinant Proteins</a> ; <a href="#">Histone</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## 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/59764>