

Mononucleosomes Recombinant Protein

Recombinant Mononucleosomes (H3.3)

CATALOG # AAA60119	HOST E Coli
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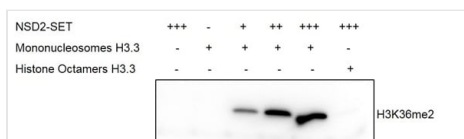
PRODUCT SYNONYMS

Mononucleosomes; Recombinant Mononucleosomes (H3.3); Mononucleosomes recombinant protein

PRODUCT SPECIFICATIONS

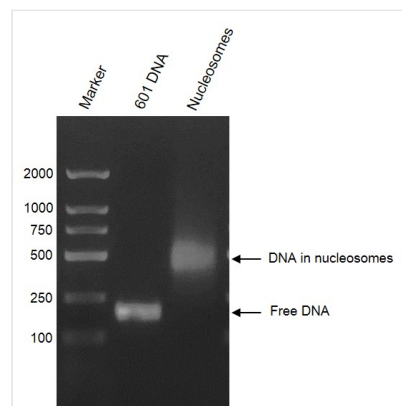
Host	E Coli
Form/Format	Recombinant Mononucleosomes (H3.3)(50ug protein + 50ug DNA) are supplied at a protein concentration of 0.7ug /ul in 10mM Tris-HCl, pH8.0, 1mM EDTA, 2mM DTT and 20% glycerol.
Protein Species	Human
Notes	Recombinant Mononucleosomes (H3.3) are suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling. HMT Assay Conditions: 2ug Recombinant Mononucleosomes (H3.3) were incubated with NSD2-SET in 30ul reaction system including 50mM Tris-HCl pH 8.6, 0.02% Triton X-100, 2mM MgCl ₂ , 1mM TCEP, 50uM SAM for 3 hours at room temperature. Activity was detected by Western blot.
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



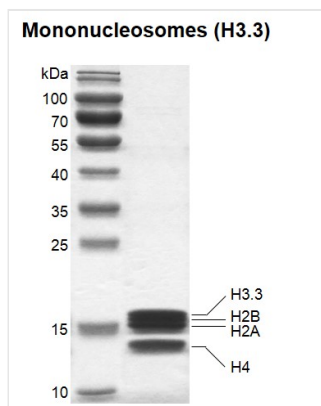
WB (Western Blot)

Western Blot for activity detection of Mononucleosomes (H3.3) 2 ug Recombinant Mononucleosomes (H3.3) were incubated with 0 ug, 0.25 ug, 0.5 ug, 1 ug NSD2-SET in reaction buffer for 3 hours at room temperature, respectively. Western blot was used to detect the generation of reaction products (H3K36me2). Recombinant Histone Octamers were used as control substrates. The Western Blot result showed that nucleosomes were more suitable substrate for NSD2-SET than histone octamers.



Application Data

Recombinant Mononucleosomes (H3.3) DNA agarose gel Mononucleosomes (H3.3) were run on an agarose gel and stained with ethidium bromide. Lane 1: DNA Marker. Lane 2: 601 DNA which was used for assembly of nucleosomes. Lane 3: Intact nucleosome. Intact nucleosomes migrate much higher than free DNA. The agarose gel result shows almost all of 601 DNA wrap histone octamer to form nucleosomes.



SDS-PAGE

Recombinant Mononucleosomes (H3.3) SDS-PAGE gel 13% SDS-PAGE Coomassie staining
MW: 108 kDa Purity: >95%

ADDITIONAL INFORMATION

Related Product Information for Mononucleosomes recombinant protein

Short Description: Recombinant Mononucleosomes (H3.3) consist of a 167 bp of 601 DNA without any 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), H3.3 that includes amino acids 1-136 (end)(accession number NM_005324), 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: 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.

Product Categories/Family for Mononucleosomes recombinant protein

Recombinant Proteins; Histone

NCBI AND UNIPROT INFORMATION

NCBI GenBank Nucleotide

NM_003512

Molecular Weight

Molecular weight of histone octamer is 108kDa

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/mononucleosomes-recombinant-protein-e-coli/60119>