

Mononucleosomes Recombinant Protein | H2AFZ recombinant protein

Recombinant Mononucleosomes (H2A.Z)

CATALOG # AAA60120	HOST E Coli
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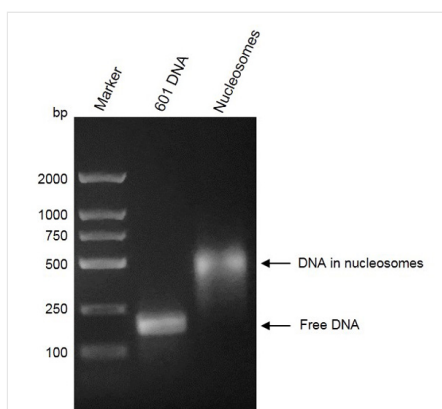
PRODUCT SYNONYMS

Mononucleosomes; Recombinant Mononucleosomes (H2A.Z); H2AFZ recombinant protein

PRODUCT SPECIFICATIONS

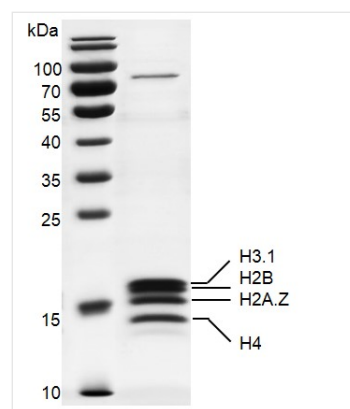
Host	E Coli
Form/Format	Recombinant Mononucleosomes (H2A.Z)(50ug protein + 50ug DNA) are supplied in 10mM Tris-HCl pH8.0, 1mM EDTA, 2mM DTT and 20% glycerol.
Protein Species	Human
Notes	Recombinant Mononucleosomes (H2A.Z) are suitable for use as substrates in the study of enzyme kinetics, inhibitor screening, 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



Application Data

Recombinant Mononucleosomes (H2A.Z) DNA gel Mononucleosomes (H2A.Z) were run on a 2% agarose gel and stained with ethidium bromide. Lane 1: DNA marker. Lane 2: free 601 DNA. Lane 3: Intact mononucleosomes. Intact mononucleosomes migrate much higher than free 601 DNA. The agarose gel result shows that almost all of 601 DNA wraps histone octamers to form mononucleosomes



SDS-PAGE

Recombinant Mononucleosomes (H2A.Z) 13% SDS-PAGE Coomassie staining MW: 108.3 kDa Purity: ? 85%

ADDITIONAL INFORMATION

Related Product Information for H2AFZ recombinant protein	Short Description: Recombinant Mononucleosomes (H2A.Z) consist of 167 bp of 601 DNA and two molecules each of histones H2A.Z that includes amino acids 1-128 (end)(accession number NP_002097.1), H2B that includes amino acids 1-126 (end)(accession number NP_003509.1), H3 that includes amino acids 1-136 (end)(accession number NP_003520.1), 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 ~108.3 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, nucleosome is the basic structural unit of chromatin. It is consisted of about 146 bp of DNA wrapped around a core of eight histones of four different types: H2A, H2B, H3 and H4. Histones are subject to posttranslational modifications, such as methylation, acetylation, phosphorylation, mono-ubiquitination, tec. Histone modifications influence multiple chromatin templated processes such as gene transcription, DNA repair and recombination. Besides the "major" histones, there are some histone variants in specific regions of chromatin or in specific cell types. Histone variants were involved in multiple biology processes including chromosome segregation, DNA repair, transcriptional regulation and mRNA processing. H2A.Z (also known as H2AFZ, Histone Family Member Z) is a histone H2A family member. It is highly conserved from yeast to human, with 90% of its primary sequence preserved among different species, showing only 60% homology with canonical histone H2A. H2A.Z is found in approximately 10% of mammalian nucleosomes. H2A.Z has been one of the most studied H2A variants in recent years. It plays an important role in different biological processes such as DNA replication, DNA repair, transcription regulation, cell cycle, spermatogenesis, chromosome segregation, centromere structure and maintenance of heterochromatic/euchromatic status. However, different studies reported diverse conclusions in the nucleosome stability and transcriptional regulation. The contradictory roles of H2A.Z in vivo might be explained by different combinations of H2A.Z with other epigenetic regulators, PTMs on H2A.Z and interaction with chromatin binding proteins. 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 H2AFZ recombinant protein	Recombinant Proteins; Histone

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504255
NCBI GeneID	3015
NCBI Accession #	NP_002097.1; NP_003509.1; NP_003520.1; NP_003539.1
NCBI GenBank Nucleotide #	NM_002106.3
UniProt Accession #	P0C0S5; P17317; Q6I9U0; B2RD56
Molecular Weight	13,553 Da
NCBI Official Full Name	histone H2A.Z
NCBI Official Synonym Full Names	H2A histone family, member Z
NCBI Official Symbol	H2AFZ
NCBI Official Synonym Symbols	H2AZ; H2A.z; H2A/z; H2A.Z-1
NCBI Protein Information	histone H2A.Z; H2AZ histone
UniProt Protein Name	Histone H2A.Z
UniProt Gene Name	H2AFZ

UniProt Synonym Gene Names	H2AZ; H2A/z
UniProt Entry Name	H2AZ_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/h2afz-recombinant-protein-e-coli/60120>