Datasheet for ABIN2669580

Histone H3.1 Protein (HIST1H3B) (full length)

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1 Image

Overview

Quantity:	100 µg
Target:	Histone H3.1 (HIST1H3B)
Protein Characteristics:	full length
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Application:	Enzyme Activity Assay (EAA), Screening Assay (ScA)

Product Details

Characteristics:	Recombinant Histone H3.1, Human, corresponds to the native histone sequence of mammalian histone H3 variant H3.1 and does not contain any amino acid substitutions or residue analogs. Histone H3.1 is known to be important for gene regulation. Recombinant Histone H3.1, Human consists of the full-length sequence of human Histone H3.1 variant (accession number NM_003529). Recombinant Histone H3.1, Human was generated in E. coli cells and has an observed molecular weight of 15.4 kDa.

Target Details

Target:	Histone H3.1 (HIST1H3B)
Alternative Name:	Histone H3.1 (HIST1H3B Products)
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

Target Details

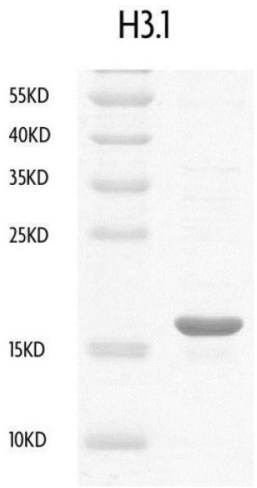
	at the interface between the nucleosome core and DNA entry/exit points. Histone H3.1 and Histone H3.3 are the two main Histone H3 variants found in plants and animals. They are known to be important for gene regulation. Histone H3.1 and H3.3 have been shown to demonstrate unique genomic localization patterns thought to be associated with their specific functions in regulation of gene activity. Specifically, Histone H3.1 localization is found to coincide with genomic regions containing chromatin repressive marks (H3K9me3, H3K27me3 and DNA methylation), whereas Histone H3.3 primarily colocalizes with marks associated with gene activation (H3K4me3, H2BK120ub1, and RNA pol II occupancy). Deposition of the Histone H3.1 variant into the nucleosome correlates with the canonical DNA synthesis-dependent deposition pathway, whereas Histone H3.3 primarily serves as the replacement Histone H3 variant outside of S-phase, such as during gene transcription. Aberrant localization of these variants is also known to correlate with certain cancers.
Molecular Weight:	15.4 kDa

Application Details

Application Notes:	Recombinant Histone H3.1, Human is suitable for use in the study of enzyme kinetics, inhibitor screening, and selectivity profiling.
Restrictions:	For Research Use only

Handling

Concentration:	2 µg/µL
Handling Advice:	Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
Storage:	-80 °C
Storage Comment:	Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation.



Western Blotting

Image 1. Recombinant Histone H3.1 protein gel. Recombinant Histone H3.1 run on an SDS-PAGE gel and stained with Coomassie blue.

