

Recombinant Histone H3.2

Catalog No: 81237, 81937

Expressed In: *E. coli*

Quantity: 100, 1000 µg

Concentration: 1.4 µg/µl

Source: Human

Buffer Contents: Recombinant Histone H3.2 is supplied in 25 mM Tris-HCl pH 7.4, 150 mM NaCl, and 10% glycerol.

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 at the interface between the nucleosome core and DNA entry/exit points. Nuclear core histone H3 exist as several variants: H3.1, H3.2, H3.3, CENP-A and H3t. These variants have been suggested to have specific functions in the regulation of gene expression and genome stability. In mammals, histone H3 non-centromeric variants, H3.1, H3.2 and H3.3, differ in their chromatin deposition patterns and PTMs despite having a high degree of sequence similarity. H3.1 and H3.2, which are enriched in repressive chromatin marks, are predominantly expressed during S-Phase and deposited in DNA synthesis-coupled fashion during DNA replication and repair. In contrast, H3.3 is enriched in active chromatin marks and is expressed throughout the cell cycle.

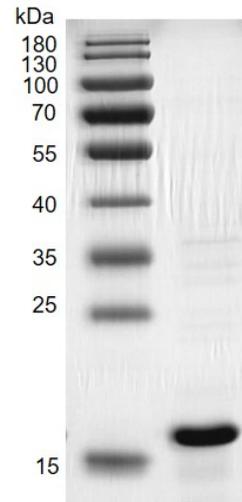
Canonical histone H3.2 is expressed during S phase and differs by only one amino acid residue from the variant histone H3.1, and four amino acid residues from histone H3.3. According to some researches, H3.1 is preferentially acetylated and dimethylated on lysines 14 and 9, respectively, while H3.2 is preferentially subjected to trimethylation on lysine 27.

Protein Details: Recombinant Histone H3.2 was expressed in *E. coli* cells as full length protein (accession number: NP_066403.2) and has an observed molecular weight of 15.4 kDa.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data this product is shown.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

Histone H3.2



Recombinant Histone H3.2 gel
12.5% SDS-PAGE gel with Coomassie blue staining
MW: 15.4 kDa
Purity: >90%