

Recombinant Histone H1.2

Catalog No: 81252, 81952

Expressed In: *E. coli*

Quantity: 50, 1000 µg

Concentration: 0.4 µg/µl

Source: Human

Buffer Contents: Recombinant Histone H1.2 is supplied in 25 mM Tris-HCl pH 8.0, 500 mM NaCl, and 5% glycerol.

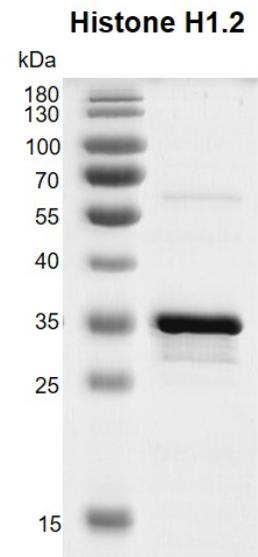
Background: Histone H1.2, also called as H1C or H1F2, is a replication-dependent histone that is a member of the histone H1 family. Histone H1 binds to linker DNA between nucleosomes forming the macromolecular structure known as the chromatin fiber. So it is necessary for the condensation of nucleosome chains into higher-order structured fibers. It can also act as a regulator of individual gene transcription through chromatin remodeling, nucleosome spacing and DNA methylation.

Histones are basic nuclear proteins responsible for nucleosome structure of the chromosomal fiber in eukaryotes. Two molecules of each of the four core histones (H2A, H2B, H3, and H4) form an octamer around which approximately 146 bp of DNA is wrapped in repeating units, called nucleosomes. *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.

Protein Details: Full length Histone H1.2 (accession number NP_005310.1) was expressed in *E. coli* cells. The molecular weight of histone H1.2 is 21.4 kDa.

Application Notes: Recombinant Histone H1.2 is suitable for use as the substrate in the study of enzyme kinetics, inhibitor screening, and selectivity profiling, as well as a component of assembled nucleosomes.

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.



Recombinant Histone H1.2 protein gel
12.5% SDS-PAGE with Coomassie blue staining
MW: 21.4 kDa
Purity: ≥90%