

Recombinant Full Length Human Histone H3.1 Protein

Cat. No. H3.1-10H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	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.
Species	Human
Source	E.coli
ProteinLength	1-136 aa
Description	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. 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

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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.

Form

Recombinant Histone H3.1 (Human) is supplied at a concentration of 1 µg/µL in 50 mM Tris-HCl pH 8.0, 150 mM NaCl, 5% glycerol.

Molecular Mass

15.4 kDa

Purity

> 90%

Storage

Recombinant proteins in solution are temperature sensitive and must be stored at -80 centigrade to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.

Concentration

1 µg/µL

GENE INFORMATION

Gene Name

H3C1 H3 clustered histone 1 [Homo sapiens (human)]

Official Symbol

H3C1

Synonyms

H3C1; H3 clustered histone 1; H3/A; H3FA; HIST1H3A; histone H3.1; H3 histone family, member A; histone 1, H3a; histone H3/a; histone cluster 1 H3 family member a; histone cluster 1, H3a

Gene ID

8350

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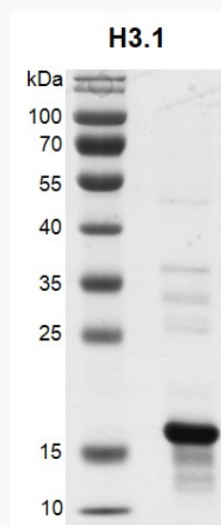
mRNA Refseq NM_003529

Protein Refseq NP_003520

MIM 602810

UniProt ID P68431

SDS-PAGE



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