

Recombinant Human Histone Cluster 1, H3a

Cat. No. HIST1H3A-3108H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HIST1H3A (Met 1-Pro 114), was expressed in <i>E.coli</i> .
Species	Human
Source	E.coli
Protein Length	1-114 a.a.
Description	Histone H3.1, also known as HIST1H3A, HIST1H3B, HIST1H3C, HIST1H3D, HIST1H3E, HIST1H3F, HIST1H3G, HIST1H3H, HIST1H3I, HIST1H3J, is a member of the histone H3 family which is a core component of nucleosome. It is expressed during S phase, then expression strongly decreases as cell division slows down during the process of differentiation. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. This structure consists of approximately 146 bp of DNA wrapped around an octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted through the interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures.

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Purity	> 95% as determined by SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Predicted N Terminal	Met.
Formulation	Lyophilized from sterile 2mM β-Mercaptoethanol.
Stability	Samples are stable for up to twelve months from date of receipt at -70°C.
Storage	Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Molecular Mass	The recombinant human HIST1H3A consisting of 136 amino acids and has a predicted molecular mass of 15.5 kDa as estimated in SDS-PAGE under reducing conditions.

GENE INFORMATION

Gene Name	HIST1H3A histone cluster 1, H3a [Homo sapiens]
Synonyms	histone cluster 1, H3a; H3/A; H3FA; HIST1H3B; HIST1H3C; HIST1H3D; HIST1H3E; HIST1H3F; HIST1H3G; HIST1H3H; HIST1H3I; HIST1H3J; HIST1H3A; histone H3.1; histone H3/a; histone H3/b; histone H3/c; histone H3/d; histone H3/f; histone H3/h; histone H3/l; histone H3/j; histone H3/k; histone H3/l; histone 1, H3a; H3 histone family, member A; Histone H3/l; Histone H3/a; Histone H3/j; Histone H3/k; Histone H3/f; Histone H3/d; Histone H3/l; Histone H3/b; Histone H3/c; Histone H3/h; H3FI; H3FJ; H3FH; H3FF; H3FB; H3FL; H3FC; H3FK; H3FD
Gene ID	8350

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mRNA Refseq	NM_003529
Protein Refseq	NP_003520
MIM	602810
UniProt ID	P68431
Chromosome Location	6p21.3
Pathway	Systemic lupus erythematosus
PDB rendering based on 1aoi. 	