

HIST3H2A Protein, Human

Cat. No.:	HY-P76382
Synonyms:	Histone H2A type 3; H2AW; HIST3H2A
Species:	Human
Source:	E. coli
Accession:	Q7L7L0 (S2-K130)
Gene ID:	92815
Molecular Weight:	15-20 kDa.

PROPERTIES

AA Sequence	<p> S G R G K Q G G K A R A K A K S R S S R A G L Q F P V G R V H R L L R K G N Y S E R V G A G A P V Y L A A V L E Y L T A E I L E L A G N A A R D N K K T R I I P R H L Q L A I R N D E E L N K L L G R V T I A Q G G V L P N I Q A V L L P K K T E S H H K A K G K </p>
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>HIST3H2A, as a core component of the nucleosome, participates in the essential process of wrapping and compacting DNA into chromatin, thereby limiting DNA accessibility to cellular machineries that rely on DNA as a template. This histone protein, like others, holds a pivotal position in key cellular functions such as transcription regulation, DNA repair, DNA replication, and the maintenance of chromosomal stability. The intricate control of DNA accessibility involves a sophisticated system of post-translational modifications known as the histone code, along with dynamic nucleosome remodeling. The nucleosome itself is a histone octamer comprising two molecules each of H2A, H2B, H3, and H4, assembled in one H3-H4 heterotetramer and two H2A-H2B heterodimers. This octamer efficiently wraps approximately 147 base pairs of DNA, underscoring its crucial role in organizing chromatin structure and facilitating essential genomic processes.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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