

Histone H3 Protein, Human

Cat. No.:	HY-P72332
Synonyms:	H3C1
Species:	Human
Source:	E. coli
Accession:	P68431 (A2-A136)
Gene ID:	8350
Molecular Weight:	Approximately 15.3 kDa

PROPERTIES

AA Sequence	P H R Y R P G T V A L R E I R R Y Q K S T E L L I R K L P F Q R L V R E I A Q D F K T D L R F Q S S A V M A L Q E A C E A Y L V G L F E D T N L C A I H A K R V T I M P K D I Q L A R R I R G E R A
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of ddH ₂ O, pH 7.0.
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. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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>Histone H3, a fundamental component of the nucleosome, serves as a linchpin in the intricate process of wrapping and compacting DNA into chromatin, which in turn restricts DNA accessibility to cellular machineries requiring DNA as a template. This histone, alongside its counterparts, assumes a pivotal role in pivotal cellular functions, including transcription regulation, DNA repair, DNA replication, and the maintenance of chromosomal stability. The regulation of DNA accessibility involves a sophisticated interplay of post-translational modifications collectively referred to as the histone code, coupled with the dynamic remodeling of nucleosomes. The nucleosome itself comprises a histone octamer, composed of 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, exemplifying its indispensable role in organizing chromatin structure and facilitating crucial genomic processes. Additionally, Histone H3 interacts with various</p>
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cellular components such as TONSL, CHAF1A, CHAF1B, MCM2, and DNAJC9, further contributing to its multifaceted functions.

Caution: Product has not been fully validated for medical applications. For research use only.

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