Histone H4 Protein, Human/Xenopus laevis

Cat. No.:	HY-P72336
Synonyms:	H4C1
Species:	Xenopus laevis
Source:	E. coli
Accession:	P62805 (S2-G103)
Gene ID:	121504
Molecular Weight:	Approximately 11.2 kDa

PROPERTIES

AA Sequence	S G R G K G G K G L G K G G A K R H R K V L R D N I Q G I T K P A I R R L A R R G G V K R I S G L I Y E E T R G V L K V F L E N V I R D A V T Y T E H A K R K T V T A M D V V Y A L K R Q G R T L Y G F G G
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of ddH_2O, pH 7.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. 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	Histone H4 protein serves as a core component of the nucleosome, a fundamental unit in chromatin architecture responsible for wrapping and compacting DNA, thereby restricting its accessibility to cellular machineries reliant on DNA templates. Histones, including H4, hold a central role in vital cellular processes such as transcription regulation, DNA repair, DNA replication, and maintenance of chromosomal stability. The intricate regulation of DNA accessibility involves a complex array of post-translational modifications, collectively known as the histone code, and dynamic nucleosome remodeling. The nucleosome structure comprises a histone octamer containing two H2A, H2B, H3, and H4 molecules each, organized into one H3-H4 heterotetramer and two H2A-H2B heterodimers. This octamer wraps approximately 147 base pairs of DNA. Additionally, Histone H4 participates in a co-chaperone complex with DNJC9, MCM2, and histone H3.3-H4 dimers, interacting directly with DNJC9 within the complex.

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

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