

Histone H4 Protein, Human

Cat. No.:	HY-P74886
Synonyms:	Histone H4; HIST4H4
Species:	Human
Source:	E. coli
Accession:	P62805 (M1-G103)
Gene ID:	121504
Molecular Weight:	Approximately 12 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of 2 mM β -ME in ddH ₂ O, pH 6.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/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>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.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA