H2AC4 Protein, Human

Cat. No.:	HY-P72328
Synonyms:	"Histone H2A type 1-B/E; Histone H2A.2; Histone H2A/a; Histone H2A/m; H2AFM"
Species:	Human
Source:	E. coli
Accession:	P04908 (S2-K130)
Gene ID:	3012
Molecular Weight:	Approximately 14.0 kDa

PROPERTIES

AA Sequence	S G R G K Q G G K A R A K A K T 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
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	H2AC4 protein serves as a core component of the nucleosome, an integral structure that envelops and compacts DNA into chromatin, effectively restricting DNA accessibility to cellular machineries requiring DNA as a template. Histones, including H2AC4, assume a pivotal role in key cellular processes such as transcription regulation, DNA repair, DNA replication, and the maintenance of chromosomal stability. The intricate regulation of DNA accessibility involves a complex network of post-translational modifications, collectively known as the histone code, and dynamic nucleosome remodeling. The nucleosome itself comprises a histone octamer, consisting of two molecules each of H2A, H2B, H3, and H4, arranged in one H3-H4 heterotetramer and two H2A-H2B heterodimers. This octamer efficiently wraps approximately 147 base pairs of DNA, underscoring its fundamental role in organizing chromatin structure and facilitating genomic functions.

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

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