HDAC6 Protein, Human (His-SUMO)

Cat. No.:	HY-P72223
Synonyms:	CPBHM; FLJ16239; HD 6; HD6; HDAC 6; HDAC6; HDAC6_HUMAN; Histone deacetylase 6 HD6; ; Histone deacetylase 6; JM 21; JM21; KIAA0901; OTTHUMP00000032398; OTTHUMP00000197663; PPP1R90; Protein phosphatase 1 regulatory subunit 90
Species:	Human
Source:	E. coli
Accession:	Q9UBN7 (M1-N488)
Gene ID:	10013
Molecular Weight:	Approximately 70.1 kDa

PROPERTIES

AA Sequence	M T S T G Q D S T T T R Q R R S R Q N P Q S P P Q D S S V T S K R N I K K G A V P R S I P N L A E V K K K G K M K K L G Q A M E E D L I V G L Q G M D L N L E A E A L A G T G L V L D E Q L N E F H C L W D D S F P E G P E R L H A I K E Q L I Q E G L L D R C V S F Q A R F A E K E E L M L V H S L E Y I D L M E T T Q Y M N E G E L R V L A D T Y D S V Y L H P N S Y S C A C L A S G S V L R L V D A V L G A E I R N G M A I I R P P G H H A Q H S L M D G Y C M F N H V A V A A R Y A Q Q K H R I R R V L I V D W D V H H G Q G T Q F T F D Q D P S V L Y F S I H R Y E Q G R F W P H L K A S N W S T T G F G Q G Q G Y T I N V P W N Q V G M R D A D Y I A A F L H V L L P V A L E F Q P Q L V L V A A G F D A L Q G D P K G E M A A T P A G F A Q L T H L L M G L A G G K L I L S L E G G Y N L R A L A E G V S A S L H T L L G D P C P M L E S P G A P C R S A Q A S V S C A L E A L E P F W E V L V R S T E T V E R D N M E E D N V E E S E E E G P W E P P V L P I L T W P V L Q S R T G L V Y D Q N
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm solution of Tris-based buffer, 50% Glycerol.
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.
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	The HDAC6 protein assumes a multifaceted role, primarily responsible for the deacetylation of lysine residues on the N-terminal portion of core histones (H2A, H2B, H3, and H4), contributing to the epigenetic repression that plays crucial roles in transcriptional regulation, cell cycle progression, and developmental events. Operating within large multiprotein complexes, histone deacetylases, including HDAC6, orchestrate these processes. Beyond histones, HDAC6 extends its deacetylation activity to diverse proteins, such as tubulin, essential for microtubule-dependent cell motility, and alpha-tubulin, pivotal for cilia disassembly. Additionally, HDAC6 facilitates actin polymerization and autophagosome-lysosome fusion by deacetylating CTTN, promoting autophagy completion. Its involvement in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer and promotion of odontoblast differentiation showcase its diverse functions. Furthermore, HDAC6 plays a key role in the degradation of misfolded proteins, acting as an adapter to recognize polyubiquitinated misfolded proteins and targeting them to the aggresome for clearance via autophagy when the chaperone refolding system and the ubiquitin-proteasome are insufficient.

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