

Active Recombinant Human HDAC6 Protein

Cat. No. HDAC6-313H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HDAC6 Protein is produced by HEK293 cells expression system.
Species	Human
Source	HEK293
ProteinLength	amino acids 2–1215
Description	HDAC6 is a Class II HDAC. It is unique among human HDACs in having two full deacetylase domains. As a tubulin deacetylase, HDAC6 may act to promote autophagic clearing of Huntington aggregates and retard HIV1 infection. It can shuttle between the nucleus and cytoplasm, suggesting potential extra nuclear functions by regulating the acetylation status of non-histone substrates. By modifying chromatin structure and other non-histone proteins, HDACs play important roles in controlling complex biological events, including cell development, differentiation, programmed cell death, angiogenesis, and inflammation. Considering these major roles, it is conceivable that dysregulation of HDACs and subsequent imbalance of acetylation and deacetylation may be involved in the pathogenesis of various diseases, including cancer and inflammatory diseases.
Form	Liquid, In 30 mM HEPES, 140 mM NaCl, 10 mM KCl, 3% glycerol, 0.25 mM TCEP, pH 7.4.
Bio-activity	Deacetylation activity was determined using GAK(Ac)-AMC, Boc-K(Ac)-AMC and

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Fluor-de-Lys (RHK-K(Ac)-AMC) substrates. Reactions were carried out in a 384-well plate in 20 μ l of reaction buffer comprising of 50 mM HEPES, 140 mM NaCl, 10 mM KCl, 1 mg/ml bovine serum albumin (BSA), and 1 mM TCEP, pH 7.4, for 30 min at 37°C. The reaction was stopped by addition of 20 μ l of trypsin solution (2 mg/ml trypsin) and a fluorescence signal of released AMC was quantified using a fluorometer. The enzyme kinetic values were calculated by non-linear regression analysis.

Molecular Mass	131 kDa
Purity	≥90% by SDS-PAGE
Notes	For Research Use Only! Not For Use in Humans.
Storage	Store at -80 centigrade.
Handling	Thaw on ice, and aliquot into smaller working quantities to avoid multiple freeze/thaw cycles.

GENE INFORMATION

Gene Name	HDAC6 histone deacetylase 6 [Homo sapiens]
Official Symbol	HDAC6
Synonyms	HDAC6; histone deacetylase 6; FLJ16239; HD6; JM21; KIAA0901;
Gene ID	10013
mRNA Refseq	NM_006044

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Protein Refseq	NP_006035
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MIM	300272
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UniProt ID	Q9UBN7
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Coomassie blue-stained SDS-PAGE (10% acrylamide) of 1 ug of HDAC6.

Steady-state kinetics of full length human HDAC6 on commercial substrates. Data represent mean values $\pm$ s.d.; n=3.

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