

Active Recombinant Human HDAC11 Protein

Cat. No. HDAC11-315H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HDAC11 Protein is produced by HEK293 cells expression system.
Species	Human
Source	HEK293
ProteinLength	amino acids 1–347
Description	HDAC11 is a 39kDa protein and belongs to the Histone Deacetylase Class IV subfamily. The enzyme is primarily localized in the nucleus and shows high expression in specific tissues like brain, heart, skeletal muscle and kidney. It is the newest member of the HDAC family and hence very little is known about its functional role. Initial studies identified HDAC11 as a negative regulator of IL-10 production in APC cells. A recent study shows that HDAC11 is the most efficient fatty acid deacetylase of the HDAC family with catalytic efficiencies towards dodecanoylated and myristoylated substrates exceeding 70,000 M ⁻¹ s ⁻¹ . Increasing body of evidence indicate a possible involvement of HDAC11 in diverse pathophysiological processes including immunomodulation, cancer pathogenesis, cellular differentiation etc.
Form	Liquid, In 30 mM HEPES, 140 mM NaCl, 10 mM KCl, 3% glycerol, 0.25 mM TCEP, pH 7.6.
Bio-activity	Deacetylation activity was determined using a myristoylated substrate. Reactions were carried out in a 384-well plate in 20 µ of reaction buffer comprising of 50 mM

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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 µl of trypsin solution (2 mg/ml trypsin) and the fluorescence signal of released AMC was quantified using a fluorometer. The enzyme kinetic values were calculated by nonlinear regression analysis.

Molecular Mass	84 kDa
Purity	≥80% 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	HDAC11 histone deacetylase 11 [Homo sapiens]
Official Symbol	HDAC11
Synonyms	HDAC11; histone deacetylase 11; HD11; FLJ22237;
Gene ID	79885
mRNA Refseq	NM_001136041
Protein Refseq	NP_001129513

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MIM	607226
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UniProt ID	Q96DB2
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Coomassie blue-stained SDS-PAGE (10% acrylamide) of 1 ug of HDAC11.

Steady-state kinetics of full human HDAC11 on a myristoylated peptide. Data represent mean values $\pm$ s.d.; n=3.

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