

## Active Recombinant Human HDAC8 Protein

Cat. No. HDAC8-314H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human HDAC8 Protein is produced by HEK293 cells expression system.
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>ProteinLength</b>	amino acids 1–377
<b>Description</b>	Human Histone Deacetylase 8 (HDAC8) is a member of the class I Histone Deacetylases. HDACs are important enzymes for the transcriptional regulation of gene expression in eukaryotic cells. HDACs catalyze the removal of acetyl groups from lysines near the N-termini of histones. Human HDACs have been implicated in a variety of human diseases such as cardiomyopathy, osteodystrophy, neurodegenerative disorders, aging and cancer. Expression of HDAC8 is restricted to cells showing smooth muscle differentiation in normal human tissue and is a novel marker of smooth muscle differentiation. Like other class I and II HDAC members, the activity of HDAC8 is sensitive to HDAC inhibitor Trichostatin A (TSA).
<b>Form</b>	Liquid, In 30 mM HEPES, 140 mM NaCl, 10 mM KCl, 3% glycerol, 0.25 mM TCEP, pH 7.5.
<b>Bio-activity</b>	Deacetylation activity was determined using the Boc-K(TFA)-AMC substrate. Reactions were carried out in a 384-well plate in 20 $\mu$ of reaction buffer comprising of 50 mM HEPES, 140 mM NaCl, 10 mM KCl, 1 mg/ml bovine serum albumin (BSA),

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

and 1 mM TCEP, pH 7.4, for 30 min at 37°C. The reaction was stopped by addition of 20 µof 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

<b>Molecular Mass</b>	41 kDa
<b>Purity</b>	≥95% by SDS-PAGE
<b>Notes</b>	For Research Use Only! Not For Use in Humans.
<b>Storage</b>	Store at -80 centigrade.
<b>Handling</b>	Thaw on ice, and aliquot into smaller working quantities to avoid multiple freeze/thaw cycles.

## GENE INFORMATION

<b>Gene Name</b>	HDAC8 histone deacetylase 8 [ Homo sapiens ]
<b>Official Symbol</b>	HDAC8
<b>Synonyms</b>	HDAC8; histone deacetylase 8; HDACL1, histone deacetylase like 1; RPD3; histone deacetylase-like 1; HD8; CDA07; HDACL1;
<b>Gene ID</b>	55869
<b>mRNA Refseq</b>	NM_001166418
<b>Protein Refseq</b>	NP_001159890

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**MIM** 300269

**UniProt ID** Q9BY41

Coomassie blue-stained SDS-PAGE (10% acrylamide) of 1 ug of HDAC8.

Steady-state kinetics of full human HDAC8 using the Boc-K(TFA)-AMC substrate.  
Data represent mean values  $\pm$  s.d.; n=3.

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