

# Human CellExp™ HDAC8, Human Recombinant, Active

**CATALOG #:** P1266-50 50 µg

**ALTERNATE NAMES:** HDACL1, HD8, Histone Deacetylase 8, CDA07

**SOURCE:** HEK 293 cells (amino acids 1 – 377)

**PURITY:** ≥ 95% by SEC

**MOL. WEIGHT:** This protein has a calculated MW of 41 kDa.

**FORM:** Liquid

**FORMULATION:** In 30 mM HEPES, 140 mM NaCl, 10 mM KCl, 3% glycerol, 0.25 mM TCEP, pH 7.4

**STORAGE CONDITIONS:** Store at -70°C. Thaw on ice, and aliquot into smaller working quantities to avoid multiple freeze/thaw cycles.

**DESCRIPTION:** 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).

**BIOLOGICAL ACTIVITY:** Deacetylation activity was determined using the Boc-K(TFA)-AMC substrate. Reactions were carried out in a 384-well plate in 20 µL 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 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 non-linear regression analysis.

## Human recombinant HDAC8, Active

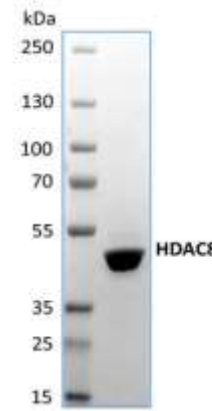


Figure 1: Coomassie blue-stained SDS-PAGE (10% acrylamide) of 1 µg of HDAC8

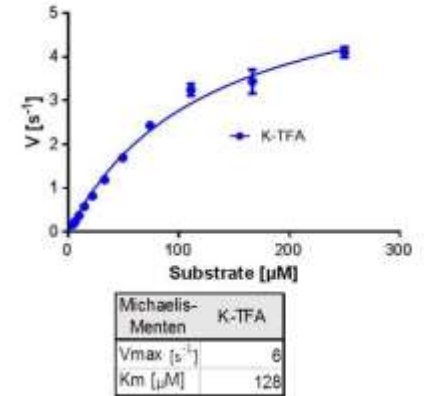


Figure 2: Steady-state kinetics of full human HDAC8 using the Boc-K(TFA)-AMC substrate. Data represent mean values ± s.d.; n = 3.

## RELATED PRODUCTS:

- HDAC8 Activity Fluorometric Assay kit (Cat. No. K348-100)
- HDAC8 Inhibitor Screening kit (Fluorometric) (Cat. No. K368-100)
- HDAC Activity Fluorometric Assay Kit (Cat. No. K330-100)
- HDAC Activity Colorimetric Assay Kit (Cat. No. K331-100)
- HDAC Inhibitor Drug Screening Kit (Cat. No. K340-100)
- InSitu HDAC Activity Fluorometric Assay Kit (Cat. No. K339-100)
- HDAC-8, human recombinant (Cat. No. 7618-20, -100, -1000)
- HDAC8 Antibody (Cat. No. 3608-30T, -100)
- HDAC8 Antibody (Cat. No. 5618-30T, -100)
- PCI 34051 (Cat. No. 2251-5, -25)
- Droxinostat (Cat. No. 9570-5, -25)
- BRD-73954 (Cat. No. 9596-5, -25)

**FOR RESEARCH USE ONLY! Not to be used in humans.**