

# Human CellExp™ HDAC11, Human Recombinant, Active

<b>CATALOG #:</b>	P1267-50	50 µg
<b>ALTERNATE NAMES:</b>	HDAC11, HD11, Histone Deacetylase 11	
<b>SOURCE:</b>	HEK 293 cells (amino acids 1 – 347)	
<b>PURITY:</b>	≥ 80% by SEC	
<b>MOL. WEIGHT:</b>	This protein is fused with a FLAG tag at N-terminus and the protein has a calculated MW of 84 kDa.	
<b>FORM:</b>	Liquid	
<b>FORMULATION:</b>	In 30 mM HEPES, 140 mM NaCl, 10 mM KCl, 3% glycerol, 0.25 mM TCEP, pH 7.4	
<b>STORAGE CONDITIONS:</b>	Store at -70°C. Thaw on ice, and aliquot into smaller working quantities to avoid multiple freeze/thaw cycles.	

**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  $70,000 \text{ M}^{-1} \text{ s}^{-1}$ . Increasing body of evidence indicate a possible involvement of HDAC11 in diverse pathophysiological processes including immunomodulation, cancer pathogenesis, cellular differentiation etc.

**BIOLOGICAL ACTIVITY:** Deacetylation activity was determined using a myristoylated 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 HDAC11, Active

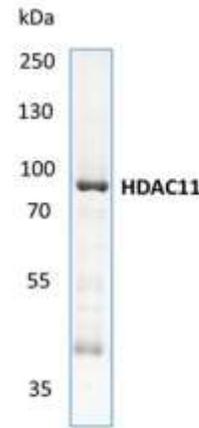


Figure 1: Coomassie blue-stained SDS-PAGE (10% acrylamide) of 1 µg of HDAC11

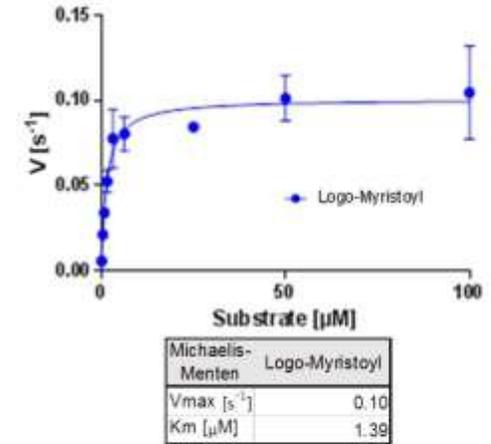


Figure 2: Steady-state kinetics of full human HDAC11 on a myristoylated peptide. Data represent mean values ± s.d.; n = 3.

**RELATED PRODUCTS:**

- HDAC11 Antibody (Cat. No. 3611P-30T, -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)
- Elevenostat (Cat. No. B1893)

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