

# Human CellExp™ HDAC5, Catalytic Domain, Human Recombinant, Active

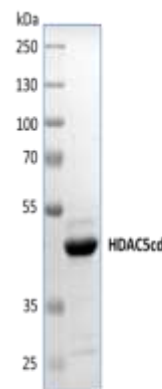
<b>CATALOG #:</b>	P1268-50	50 µg
<b>ALTERNATE NAMES:</b>	HDAC5, HD5, Histone Deacetylase 5, Antigen NY-CO-9, KIAA0600	
<b>SOURCE:</b>	HEK 293 cells (amino acids 679-1095)	
<b>PURITY:</b>	≥ 95% by SEC	
<b>MOL. WEIGHT:</b>	The protein has a calculated MW of 45 kDa.	
<b>FORM:</b>	Liquid	
<b>FORMULATION:</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:** Human HDAC5 is composed of 1122 amino acid residues. The deacetylase domain of HDAC5 is located at the C-terminal half of the molecule. The N-terminal non-deacetylase domain does not show any significant homology with any published sequence. Both domains are required for HDAC5-mediated repression of gene transcription. HDAC5 interacts with a growing number of transcriptional factors including MEF2A as well as other HDAC proteins. The interacting complexes bind to specific regions of chromatin and regulate gene transcription in these regions.

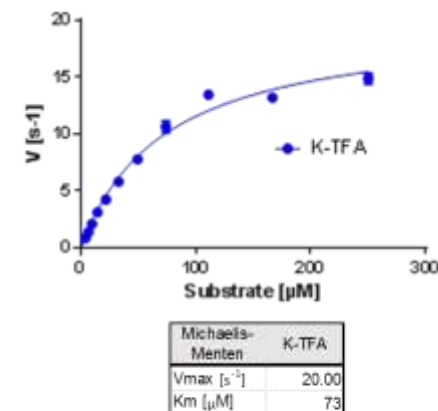
**BIOLOGICAL ACTIVITY:** Deacetylation activity was determined using the Boc-K(TFA)-AMC substrate. Reactions were carried out in a 384-well plate in 20 µL of reaction buffer comprising of 50 mM HEPES, 140 mM NaCl, 10 mM KCl, 1 mg/ml bovine serum albumin

(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 HDAC5, Catalytic Domain Active



**Figure 1:** Coomassie blue-stained SDS-PAGE (10% acrylamide) of 1 µg of HDAC5 catalytic domain



**Figure 2:** Steady-state kinetics of human HDAC5 Catalytic Domain using the Boc-K(TFA)-AMC substrate. Data represent mean values ± s.d.; n = 3.

## RELATED PRODUCTS:

- HDAC5 Antibody (**Cat. No. 36105-30T, -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**)
- TMP269 (**Cat. No. 2679-5, -25**)
- TMP-195 (**Cat. No. B1860-5, -25**)
- Human CellExp™ HDAC6, Human Recombinant, Active (**Cat. No. P1265-50**)
- Human CellExp™ HDAC8, Human Recombinant, Active (**Cat. No. P1266-50**)
- Human CellExp™ HDAC11, Human Recombinant, Active (**Cat. No. P1267-50**)

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