

Active Recombinant Human HDAC3

CATALOG #:	7613-250	250 μ Units
	7613-1000	1000 μ Units
SOURCE:	Sf9 Insect Cells	
PURITY:	~ 50 % by SDS-PAGE	
SPECIFIC ACTIVITY:	$\geq 0.5 \mu$ U/ μ l	
MOLECULAR WEIGHT:	51.1 kDa	
FORM:	rh-HDAC-3 is supplied with N-term His-tag as a liquid in 25 mM Tris, pH 7.5, 100 mM NaCl, 2.7 mM KCl, 3 mM MgCl ₂ , 10% glycerol.	
STORAGE CONDITIONS:	Stable for 1 year at -70° C. Avoid multiple freeze-thaw cycles as activity may decrease.	

BACKGROUND DESCRIPTION:

Human Histone Deacetylase 3 (HDAC3) 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. Like other class I and II HDAC members, the activity of HDAC3 is sensitive to HDAC inhibitor Trichostatin A (TSA).

APPLICATION AND USAGE:

Active HDAC3 is useful in studying enzyme regulation, determining target substrates, screening deacetylase inhibitors, or as a positive control in HDAC activity assays. We recommend using 1-5 μ U/assay for analyzing HDAC3 activity.

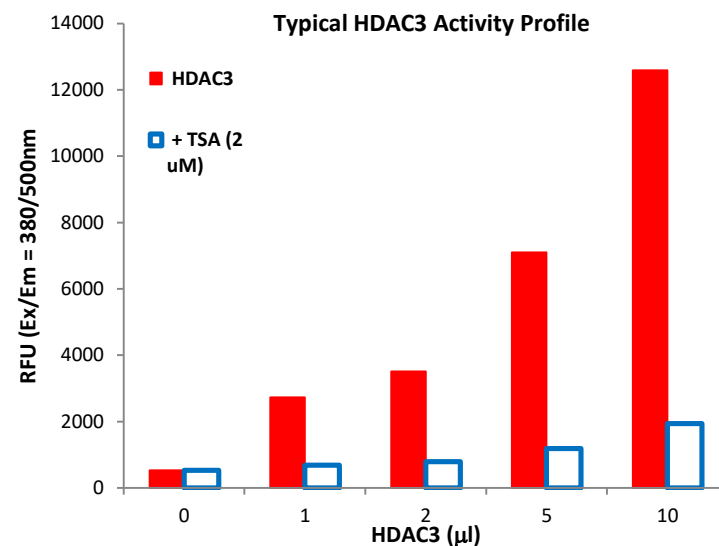
ACTIVITY:

Activity of rh-HDAC3 was tested using Arg-His-Lys-Lys(Ac)-AFC, a fluorogenic, acetylated peptide based on residues 379-382 of p53 as a substrate.

UNIT DEFINITION:

One unit of the recombinant HDAC3 is defined as the amount of enzyme that deacetylates 1 μ mol of substrate Arg-His-Lys-Lys(Ac)-AFC per minute at 37° C in a reaction solution containing 50 mM Tris, pH 7.5, 137 mM NaCl, 2.7 mM KCl, 1 mM MgCl₂ and 1 mg/ml BSA.

FOR RESEARCH USE ONLY! Not to be used on humans.



HDAC3 Activity Assay. The activity of rh-HDAC3 was determined using the Arg-His-Lys-Lys(Ac)-AFC substrate followed by treatment with Developer from HDAC3 Activity assay Kit (Cat. No. K343). Quantification was calculated from an AFC standard curve. (TSA = Trichostatin A)

RELATED PRODUCTS:

HDAC Activity Fluorometric Assay Kit (Cat. No. K330)
 HDAC Activity Colorimetric Assay Kit (Cat. No. K331)
 HDAC Family Antibody Set (Cat. No. K333)
 HDAC Inhibitor Drug Screening Kit (Fluorometric) (Cat. No. K340)
 HDAC3 Antibody (Cat. No. 6603)