

# Active Recombinant Human Histone Deacetylase 6, His-tagged

**Cat. No.** HDAC6-401H    **Lot. No.** (See product label)

## SPECIFICATION

|                          |                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>  | Recombinanthuman HDAC6 was expressed in insect cells with Histag. The molecular weight of the protein is 131 kDa.                                                                                                                                                                                                                                    |
| <b>Species</b>           | Human                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>            | Insect Cells                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>       | HDAC6is a class II HDAC, a group defined by its member's homology to the yeastHDAC HDA1. It is unique among human HDACs in that it contains two fulldeacetylase domains. A tubulin deacetylase, HDAC6 may act to promoteautophagic clearing of huntingtin aggregates and retard HIV1 infection, butalso to promote invasive motility in tumor cells. |
| <b>Supplied as</b>       | XX µg/µl in 50 mM Tris,pH 8.0, 138 mM NaCl and 10% glycerol.                                                                                                                                                                                                                                                                                         |
| <b>Purity</b>            | > 90% bySDS-PAGE.                                                                                                                                                                                                                                                                                                                                    |
| <b>Molecular Weight</b>  | 131kDa (1215 aa)                                                                                                                                                                                                                                                                                                                                     |
| <b>Activity</b>          | > 2 U/µg.One U=1 pmol/min at 37°C, 100 µM. Active with various fluorogenic peptidesubstrates, including Fluor de Lys™ substrate and Fluor de Lys™-SIRT1.                                                                                                                                                                                             |
| <b>Application</b>       | Study HDAC6kinetics and inhibitor sensitivity.                                                                                                                                                                                                                                                                                                       |
| <b>Long Term Storage</b> | -80°C.                                                                                                                                                                                                                                                                                                                                               |

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**Storage**

-70°C. The enzyme is stable on ice for the time typically required to set up an experiment (30-60 min.), but may lose activity with prolonged storage on ice. It is recommended that thawing and dilution of the enzyme be done within as short a time as possible before start of the assay. The remaining, unused, undiluted enzyme should be refrozen quickly by, for example, snap freezing in a dry ice ethanol bath or liquid nitrogen. Freezing and storage of diluted enzyme is not recommended.

**GENE INFORMATION**

|                     |                                                                                                                                                          |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene Name           | HDAC6 histone deacetylase 6 [ Homo sapiens ]                                                                                                             |
| Official Symbol     | HDAC6                                                                                                                                                    |
| Synonyms            | HDAC6; histone deacetylase 6; HD6; JM21; FLJ16239; EC 3.5.1.98; KIAA0901; OTTHUMP00000032398; OTTHUMP00000197663                                         |
| Gene ID             | 10013                                                                                                                                                    |
| mRNA Refseq         | NM_006044                                                                                                                                                |
| Protein Refseq      | NP_006035                                                                                                                                                |
| MIM                 | 300272                                                                                                                                                   |
| UniProt ID          | Q9UBN7                                                                                                                                                   |
| Chromosome Location | Xp11.23                                                                                                                                                  |
| Pathway             | Cell cycle; NOTCH1 Intracellular Domain Regulates Transcription; Signal Transduction; Signaling by NOTCH; Signaling by NOTCH1; Signaling events mediated |

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by HDAC Class I; Signaling events mediated by HDAC Class II; TNF-alpha/NF-kB Signaling Pathway

# Function

Hsp90 protein binding; NAD-dependent histone deacetylase activity (H3-K14 specific); NAD-dependent histone deacetylase activity (H3-K9 specific); NAD-dependent histone deacetylase activity (H4-K16 specific); actin binding; alpha-tubulin binding; beta-catenin binding; beta-tubulin binding; dynein complex binding; enzyme binding; histone deacetylase activity; histone deacetylase activity (H3-K16 specific); histone deacetylase binding; hydrolase activity; metal ion binding

Rendering based on  
PDB 3C5K.

