**Product Datasheet**

# HDAC6 Antibody

Catalog No: #32406

Package Size: #32406-1 50ul #32406-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

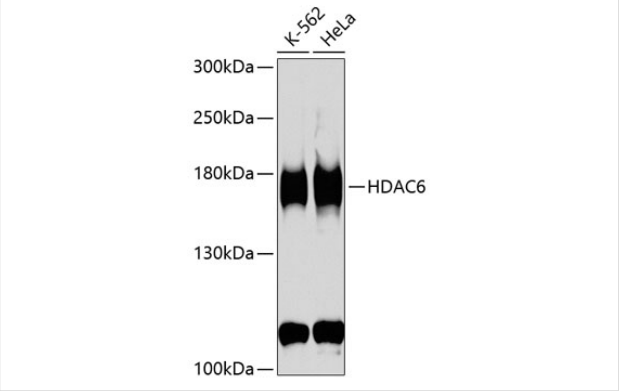
## Description

| | |
|---|---|
| Product Name | HDAC6 Antibody |
| Host Species | Rabbit |
| Clonality | Polyclonal |
| Purification | Antibodies were purified by affinity purification using immunogen. |
| Applications | WB,IHC |
| Species Reactivity | Human,Mouse,Rat |
| Specificity | The antibody detects endogenous level of total HDAC6 protein. |
| Immunogen Type | Recombinant Protein |
| Immunogen Description | Recombinant protein of human HDAC6. |
| Target Name | HDAC6 |
| Other Names | FLJ16239; HD6; JM21; |
| Accession No. | Swiss-Prot:Q9UBN7NCBI Gene ID:10013 |
| Uniprot | Q9UBN7 |
| GeneID | 10013; |
| SDS-PAGE MW | 131KD |
| Concentration | 1.0mg/ml |
| Formulation | Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| Storage | Store at -20°C |

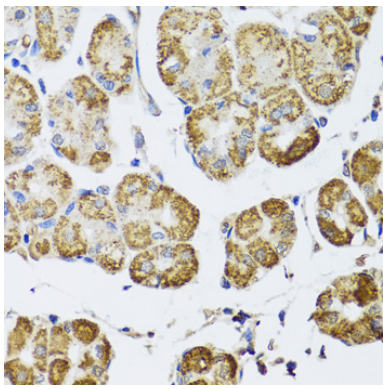
## Application Details

WB□1:500 - 1:2000IHC□1:50 - 1:200

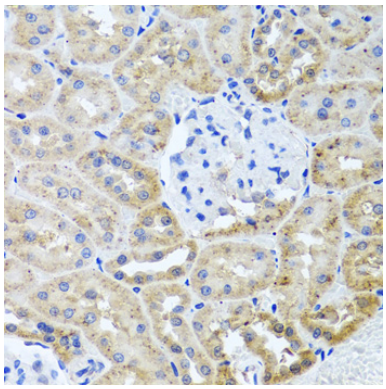
## Images



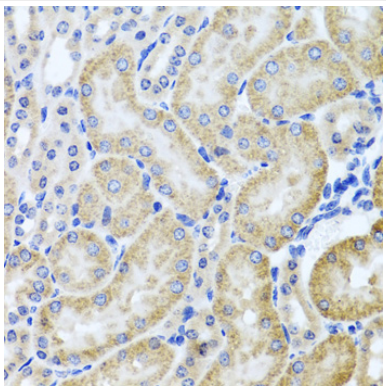

Western blot analysis of extracts of various cell lines, using HDAC6 at 1:1000 dilution.



Immunohistochemistry of paraffin-embedded human stomach using HDAC6  at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded rat kidney using HDAC6  at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded mouse kidney using HDAC6  at dilution of 1:100 (40x lens).

## Background

HDAC6 is a class II histone deacetylase enzyme localized to the cytoplasm and associated with the microtubule network (1). It is involved in the regulation of many cellular processes, including cell migration, immune synapse formation, viral infection, and degradation of misfolded proteins (1). HDAC6 contains two tandem catalytic domains that facilitate the deacetylation of multiple protein substrates, including histones and non-histone proteins such as tubulin, cortactin, and HSP90. Despite the ability to deacetylate histone proteins in vitro, there is no evidence for HDAC6-mediated deacetylation of histones in vivo (2,3). The acetylation/deacetylation of tubulin on Lys40 regulates binding and motility of the kinesin-1 motor protein and subsequent transport of cargo proteins such as JNK-interacting protein 1 (JIP1) (4). The acetylation/deacetylation of cortactin regulates cell motility by modulating the binding of cortactin to F-actin (5). Acetylation/deacetylation of HSP90 modulates chaperone complex activity by regulating the binding of an essential cochaperone protein, p23 (6,7). In addition to its role as a protein deacetylase, HDAC6 functions as a component of the aggresome, a proteinaceous inclusion body that forms in response to an accumulation of misfolded or partially denatured proteins (8). Formation of the aggresome is a protective response that sequesters cytotoxic protein aggregates for eventual autophagic clearance from the cell. HDAC6 contains a zinc finger ubiquitin-binding domain that binds both mono- and poly-ubiquitinated proteins (8). HDAC6 binds to both poly-ubiquitinated misfolded proteins and dynein motors, facilitating the transport of misfolded proteins to the aggresome (9,10). HDAC6 is also required for subsequent recruitment of the autophagic machinery and clearance of aggresomes from the cell (11). Thus, HDAC6 plays a key role in the protection against the deleterious effects of pathological protein aggregation that occurs in various diseases, such as neurodegenerative HuntingtonB‘B—s disease (11).

Note: This product is for in vitro research use only