

Product datasheet for **TA327156**

HDAC6 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB 1:500 - 1:2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human HDAC6
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	histone deacetylase 6
Database Link:	NP_006035 Entrez Gene 15185 Mouse Entrez Gene 84581 Rat Entrez Gene 10013 Human Q9UBN7



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Background:

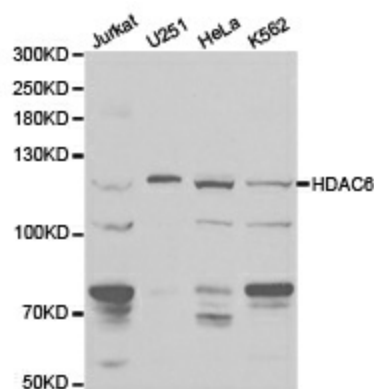
HDAC6 is a class II histone deacetylase enzyme localized to the cytoplasm and associated with the microtubule network. It is involved in the regulation of many cellular processes, including cell migration, immune synapse formation, viral infection, and degradation of misfolded proteins. HDAC6 contains 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*. 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). The acetylation/deacetylation of cortactin regulates cell motility by modulating the binding of cortactin to F-actin. Acetylation/deacetylation of HSP90 modulates chaperone complex activity by regulating the binding of an essential cochaperone protein, p23. 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. 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. HDAC6 binds to both poly-ubiquitinated misfolded proteins and dynein motors, facilitating the transport of misfolded proteins to the aggresome. HDAC6 is also required for subsequent recruitment of the autophagic machinery and clearance of aggresomes from the cell. 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 Huntington's disease.

Synonyms:

CPBHM; HD6; JM21; PPP1R90

Protein Families:

Druggable Genome, Transcription Factors

Product images:

Western blot analysis of extracts of various cell lines, using HDAC6 antibody.