

Histone Deacetylase 6 monoclonal antibody

Catalog: MB66027

Host: Mouse

Reactivity: Human

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 co-chaperone 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.

Product:

Mouse IgG1. Liquid in PBS containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.

Molecular Weight:

~ 131 kDa

Swiss-Prot:

Q9UBN7

Purification&Purity:

The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

IHC (1/100 - 1/300)

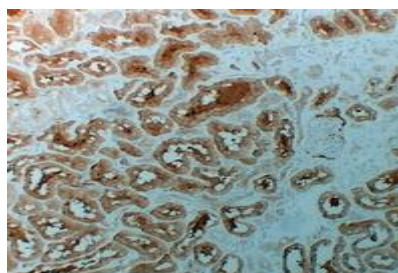
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

Specificity:

Recognizes endogenous levels of Histone Deacetylase 6 protein.

DATA:



Immunohistochemical analysis of Histone Deacetylase 6 staining in human kidney formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then

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PRODUCT DATA SHEET

Bioworld Technology, Inc.

counterstained with haematoxylin and mounted with DPX.

For research use only, not for use in diagnostic procedure.

Note:

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