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Hdac4 Antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI12303

Product Information

Application	WB, CHIP
Primary Accession	Q6NZM9
Other Accession	NM_207225, NP_997108
Reactivity	Human, Mouse, Rat, Zebrafish, Dog, Guinea Pig, Horse, Bovine, Yeast
Predicted	Human, Mouse, Rat, Zebrafish, Pig, Dog, Guinea Pig, Horse, Bovine, Yeast
Host	Rabbit
Clonality	Polyclonal
Calculated MW	118562

Additional Information

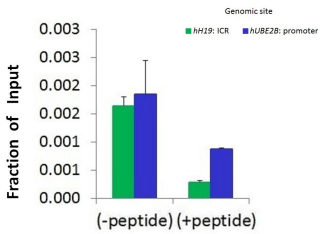
Gene ID	208727
Alias Symbol	4932408F19Rik, AI047285
Other Names	Histone deacetylase 4, HD4, 3.5.1.98, Hdac4
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-Hdac4 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	Hdac4 Antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

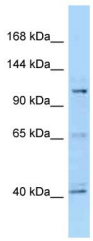
Name	Hdac4
Function	Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Histone deacetylases act via the formation of large multiprotein complexes. Involved in muscle maturation via its interaction with the myocyte enhancer factors such as MEF2A, MEF2C and MEF2D. Deacetylates HSPA1A and HSPA1A at 'Lys-77' leading to their preferential binding to co-chaperone STUB1.
Cellular Location	Nucleus. Cytoplasm. Note=Shuttles between the nucleus and the cytoplasm. Upon muscle cells differentiation, it accumulates in the nuclei of myotubes,

suggesting a positive role of nuclear HDAC4 in muscle differentiation. The export to cytoplasm depends on the interaction with a 14-3-3 chaperone protein and is due to its phosphorylation at Ser-245, Ser-465 and Ser-629 by CaMK4 and SIK1. The nuclear localization probably depends on sumoylation (By similarity) Interaction with SIK3 leads to HDAC4 retention in the cytoplasm (PubMed:22318228). {ECO:0000250, ECO:0000269|PubMed:22318228}

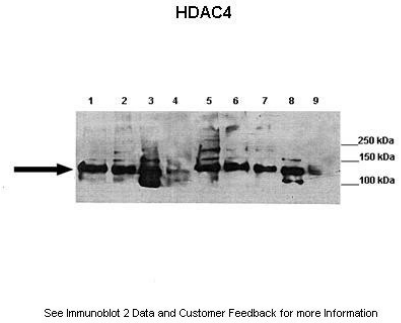
Images



Chromatin Immunoprecipitation (ChIP) Using Hdac4 Antibody - C-terminal region and HCT116 Cells



WB Suggested Anti-Hdac4 Antibody Titration: 1.0 µg/ml
Positive Control: Mouse Liver



Lanes: Lane 1: 40ug mouse brain, synaptosome lysate Lane 2: 40ug mouse brain, membrane fraction Lane 3: 40ug mouse brain, cytoplasm fraction Lane 4: 40ug mouse brain, nuclear fraction Lane 5: 40ug mouse brain, post synaptic density fraction Lane 6: 40ug mouse brain, synaptosome lysate Lane 7: 40ug mouse brain, membrane fraction Lane 8: 40ug mouse brain, cytoplasm fraction Lane 9: 40ug mouse brain, nuclear fraction
Primary Antibody Dilution: 1:1000
Secondary Antibody: Goat anti-rabbit HRP
Secondary Antibody Dilution: 1:2000
Gene Name: Hdac4
Submitted by: Wen-Cheng Xiong, Georgia Health Sciences University