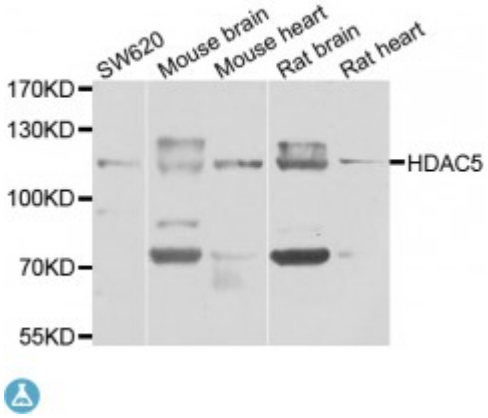
Anti-HDAC5 Antibody



Description	Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. Histone acetylation/deacetylation alters chromosome structure and affects transcription factor access to DNA. The protein encoded by this gene belongs to the class II histone deacetylase/acuc/apha family. It possesses histone deacetylase activity and represses transcription when tethered to a promoter. It coimmunoprecipitates only with HDAC3 family member and might form multicomplex proteins. It also interacts with myocyte enhancer factor-2 (MEF2) proteins, resulting in repression of MEF2-dependent genes. This gene is thought to be associated with colon cancer. Two transcript variants encoding different isoforms have been found for this gene.
Model	STJ113548
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	IF, IHC, WB
Immunogen	A synthetic peptide corresponding to a sequence within amino acids 550-650 of human HDAC5 (NP_005465.2).
Gene ID	10014
Gene Symbol	HDAC5
Dilution range	WB 1:500 - 1:2000 IHC 1:50 - 1:200 IF 1:50 - 1:200
Tissue Specificity	Ubiquitous

Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	Histone deacetylase 5 HD5
Molecular Weight	121.978 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:14068OMIM:605315Reactome:R-HSA-2122947
Alternative Names	Histone deacetylase 5 HD5
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 by repressing transcription of myocyte enhancer MEF2C, During muscle differentiation, it shuttles into the cytoplasm, allowing the expression of myocyte enhancer factors, Involved in the MTA1-mediated epigenetic regulation of ESR1 expression in breast cancer,
Cellular Localization	Nucleus, Cytoplasm,
Post-translational Modifications	Phosphorylated by AMPK, CaMK1, SIK1 and PRKD1 at Ser-259 and Ser-498, The phosphorylation is required for the export to the cytoplasm and inhibition, Phosphorylated by the PKC kinases PKN1 and PKN2, impairing nuclear import, Phosphorylated by GRK5, leading to nuclear export of HDAC5 and allowing MEF2-mediated transcription ,