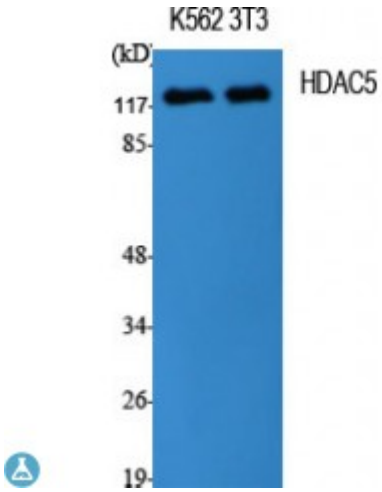
Anti-HDAC5 antibody



Description	Rabbit polyclonal to HDAC5.

Model	STJ93481
Host	Rabbit
Reactivity	Human, Mouse
Applications	ELISA, IF, IHC, WB
Immunogen	Synthesized peptide derived from human HDAC5 around the non-phosphorylation site of S498.
Immunogen Region	440-520 aa
Gene ID	10014
Gene Symbol	HDAC5
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000
Specificity	HDAC5 Polyclonal Antibody detects endogenous levels of HDAC5 protein.
Tissue Specificity	Ubiquitous.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Histone deacetylase 5 HD5 Antigen NY-CO-9
Molecular Weight	122 kDa
Clonality	Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:14068OMIM:605315
Alternative Names	Histone deacetylase 5 HD5 Antigen NY-CO-9
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.
Sequence and Domain Family	The nuclear export sequence mediates the shuttling between the nucleus and the cytoplasm.
Cellular Localization	Nucleus. Cytoplasm. Shuttles between the nucleus and the cytoplasm. In muscle cells, it shuttles into the cytoplasm during myocyte differentiation. The export to cytoplasm depends on the interaction with a 14-3-3 chaperone protein and is due to its phosphorylation at Ser-259 and Ser-498 by AMPK, CaMK1 and SIK1.
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 . Ubiquitinated. Polyubiquitination however does not lead to its degradation.