

ARG51688 anti-HDAC5 phospho (Ser498) antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes HDAC5 phospho (Ser498)
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	HDAC5
Species	Human
Immunogen	Peptide sequence around phosphorylation site of serine 498 (T-Q-S(p)-S-P) derived from Human HDAC5/7.
Conjugation	Un-conjugated
Alternate Names	HD5; EC 3.5.1.98; Histone deacetylase 5; Antigen NY-CO-9; NY-CO-9

Application Instructions

Application table	Application	Dilution
	IHC-P	1:50 - 1:100
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

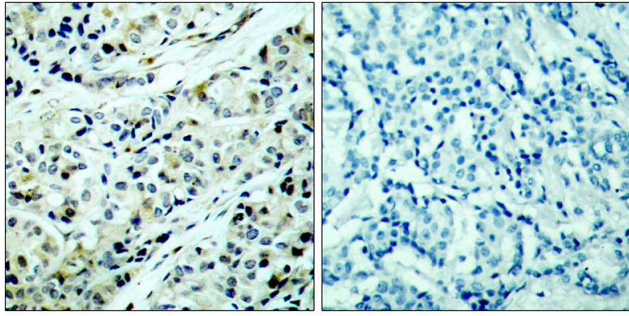
Form	Liquid
Purification	Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In addition, non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Buffer	PBS (without Mg ²⁺ and Ca ²⁺ , pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

For laboratory research only, not for drug, diagnostic or other use.

Database links	GeneID: 10014 Human Swiss-port # Q9UQL6 Human
Gene Symbol	HDAC5
Gene Full Name	histone deacetylase 5
Background	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 HDAC5 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.
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. [UniProt]
Research Area	Cell Biology and Cellular Response antibody; Developmental Biology antibody; Gene Regulation antibody; Signaling Transduction antibody
Calculated Mw	122 kDa
PTM	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 (By similarity). Ubiquitinated. Polyubiquitination however does not lead to its degradation.

Western blot analysis of HDAC5 phosphorylation at Ser498. The blot shows two lanes: 'Serum starvation -' and 'Serum starvation +'. On the left, molecular weight markers are indicated at 170, 130, 95, and 72 KD. On the right, a band is labeled 'HDAC5 (pSer498)' with a molecular weight of 293. The band is significantly more intense in the '+' lane compared to the '-' lane.

Western blot: Extracts from 293 cells untreated or treated with serum starvation stained with ARG51688 anti-HDAC5 phospho (Ser498) antibody.



ARG51688 anti-HDAC5 phospho (Ser498) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast carcinoma tissue stained with ARG51688 anti-HDAC5 phospho (Ser498) antibody (left) or the same antibody preincubated with blocking peptide (right).