

## ARG40611 anti-HDAC5 antibody

Package: 100 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes HDAC5
Tested Reactivity	Hu
Tested Application	ICC/IF, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	HDAC5
Species	Human
Immunogen	Synthetic peptide within aa. 350-450 of Human HDAC5 (NP_005465.2).
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
	ICC/IF	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	THP-1	
Observed Size	122 kDa	

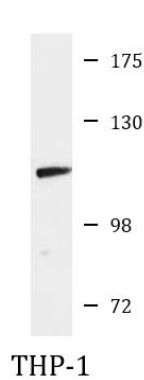
### Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
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.
Note	For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

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 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. [provided by RefSeq, Jul 2008]
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]
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. [UniProt]
Cellular Localization	Nucleus. Cytoplasm. Note=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. [UniProt]

## Images



ARG40611 anti-HDAC5 antibody WB image

Western blot: 25 µg of THP-1 cell lysate stained with ARG40611 anti-HDAC5 antibody at 1:1000 dilution.