

## ARG55389 anti-HDAC1 antibody

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

### Summary

Product Description	Rabbit Polyclonal antibody recognizes HDAC1
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	HDAC1
Species	Human
Immunogen	Recombinant protein of Human HDAC1 (NP_004955.2).
Conjugation	Un-conjugated
Alternate Names	EC 3.5.1.98; HD1; RPD3L1; Histone deacetylase 1; GON-10; RPD3

### Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:100
	IHC-P	1:100 - 1:200
	IP	1:50 - 1:100
	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.

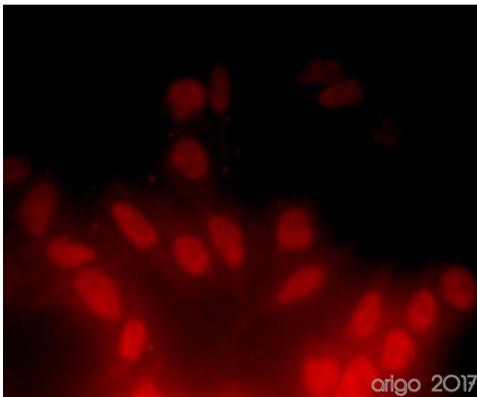
### Properties

Form	Liquid
Purification	Affinity purification with immunogen.
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	HDAC1
Gene Full Name	histone deacetylase 1
Background	Histone acetylation and deacetylation, catalyzed by multisubunit complexes, play a key role in the regulation of eukaryotic gene expression. The protein encoded by this gene belongs to the histone deacetylase/acuc/apha family and is a component of the histone deacetylase complex. It also interacts with retinoblastoma tumor-suppressor protein and this complex is a key element in the control of cell proliferation and differentiation. Together with metastasis-associated protein-2, it deacetylates p53 and modulates its effect on cell growth and apoptosis. [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. Deacetylates SP proteins, SP1 and SP3, and regulates their function. Component of the BRG1-RB1-HDAC1 complex, which negatively regulates the CREST-mediated transcription in resting neurons. Upon calcium stimulation, HDAC1 is released from the complex and CREBBP is recruited, which facilitates transcriptional activation. Deacetylates TSHZ3 and regulates its transcriptional repressor activity. Deacetylates 'Lys-310' in RELA and thereby inhibits the transcriptional activity of NF-kappa-B. Deacetylates NR1D2 and abrogates the effect of KAT5-mediated relieving of NR1D2 transcription repression activity. Component of a RCOR/GFI/KDM1A/HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development. Involved in CIART-mediated transcriptional repression of the circadian transcriptional activator: CLOCK-ARNTL/BMAL1 heterodimer. Required for the transcriptional repression of circadian target genes, such as PER1, mediated by the large PER complex or CRY1 through histone deacetylation. [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Gene Regulation antibody
Calculated Mw	55 kDa
PTM	Sumoylated on Lys-444 and Lys-476; which promotes enzymatic activity. Desumoylated by SENP1. Phosphorylation on Ser-421 and Ser-423 promotes enzymatic activity and interactions with NuRD and SIN3 complexes. Phosphorylated by CDK5. Ubiquitinated by CHFR, leading to its degradation by the proteasome. Ubiquitinated by KCTD11, leading to proteasomal degradation.

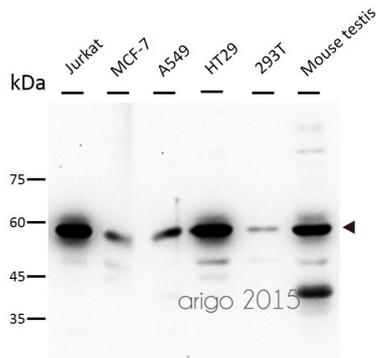
## Images



ARG55389 anti-HDAC1 antibody ICC/IF image

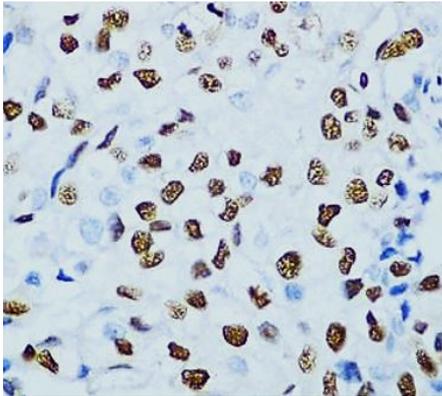
Immunofluorescence: 100% Methanol fixed (RT, 10 min) HeLa cells stained with ARG55389 anti-HDAC1 antibody (red) at 1:50 dilution.

Secondary antibody: [ARG21917](#) Goat anti-Rabbit IgG antibody (TRITC)



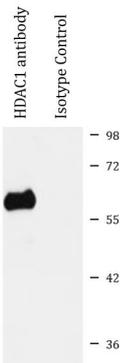
#### ARG55389 anti-HDAC1 antibody WB image

Western blot: 30  $\mu$ g of Jurkat, MCF-7, A549, HT29, 293T and Mouse testis lysates stained with ARG55389 anti-HDAC1 antibody at 1:500 dilution.



#### ARG55389 anti-HDAC1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human prostate cancer tissue stained with ARG55389 anti-HDAC1 antibody at 1:100 dilution.



#### ARG55389 anti-HDAC1 antibody IP image

Immunoprecipitation: 200  $\mu$ g extracts of HT-29 cells were immunoprecipitated and stained with ARG55389 anti-HDAC1 antibody at 1:1000 dilution.