ARG55233
anti-HDAC2 antibody

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

Summary

Product Description	Rabbit Polyclonal antibody recognizes HDAC2
Tested Reactivity	Hu, Ms
Predict Reactivity	Chk
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	HDAC2
Species	Human
Immunogen	KLH-conjugated synthetic peptide corresponding to aa. 410-439 (Center) of Human HDAC2.
Conjugation	Un-conjugated
Alternate Names	Histone deacetylase 2; EC 3.5.1.98; HD2; YAF1; RPD3

Application Instructions

Application table

Application	Dilution
FACS	1:10 - 1:50
ICC/IF	1:10 - 1:50
IHC-P	1:10 - 1:50
WB	1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

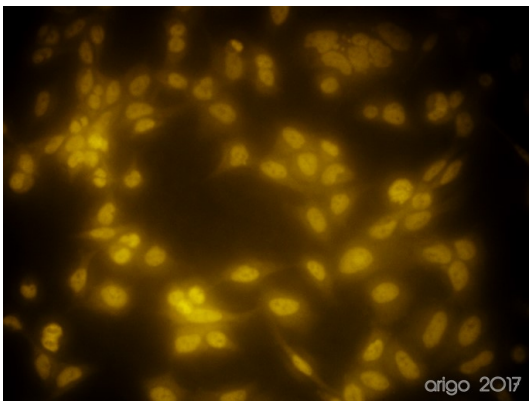
Properties

Form	Liquid
Purification	Purification with Protein A and immunogen peptide.
Buffer	PBS and 0.09% (W/V) Sodium azide
Preservative	0.09% (W/V) Sodium azide
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 or below. 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

Database links	GeneID: 15182 Mouse GeneID: 3066 Human Swiss-port # P70288 Mouse Swiss-port # Q92769 Human
Gene Symbol	HDAC2
Gene Full Name	histone deacetylase 2
Background	This gene product belongs to the histone deacetylase family. Histone deacetylases act via the formation of large multiprotein complexes, and are responsible for the deacetylation of lysine residues at the N-terminal regions of core histones (H2A, H2B, H3 and H4). This protein forms transcriptional repressor complexes by associating with many different proteins, including YY1, a mammalian zinc-finger transcription factor. Thus, it plays an important role in transcriptional regulation, cell cycle progression and developmental events. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2010]
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. Forms transcriptional repressor complexes by associating with MAD, SIN3, YY1 and N-COR. Interacts in the late S-phase of DNA-replication with DNMT1 in the other transcriptional repressor complex composed of DNMT1, DMAP1, PCNA, CAF1. Deacetylates TSHZ3 and regulates its transcriptional repressor 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. May be involved in the transcriptional repression of circadian target genes, such as PER1, mediated by CRY1 through histone deacetylation. Involved in MTA1-mediated transcriptional corepression of TFF1 and CDKN1A. [UniProt]
Research Area	Cell Biology and Cellular Response antibody; Developmental Biology antibody; Gene Regulation antibody; Signaling Transduction antibody
Calculated Mw	55 kDa
PTM	S-nitrosylated by GAPDH. In neurons, S-Nitrosylation at Cys-262 and Cys-274 does not affect the enzyme activity but abolishes chromatin-binding, leading to increases acetylation of histones and activate genes that are associated with neuronal development. In embryonic cortical neurons, S-Nitrosylation regulates dendritic growth and branching. S-Nitrosylation interferes with its interaction with MTA1 (By similarity).
Cellular Localization	Nucleus. Cytoplasm

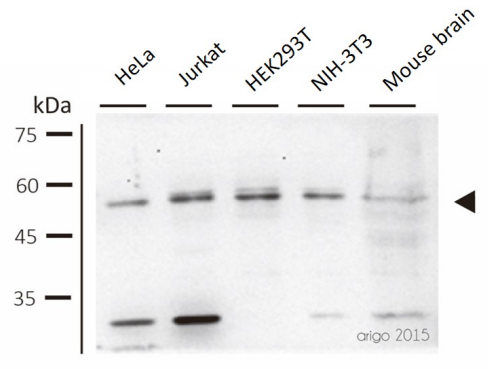
Images



ARG55233 anti-HDAC2 antibody ICC/IF image

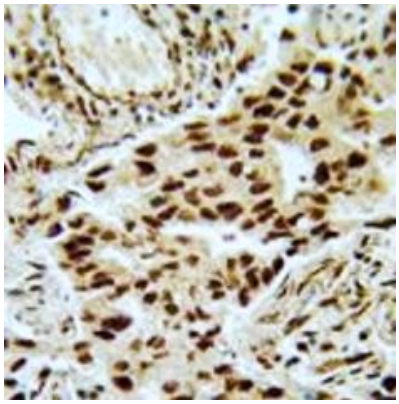
Immunofluorescence: 100% Methanol fixed (RT, 10 min) HeLa cells stained with ARG55233 anti-HDAC2 antibody (orange) at 1:10 dilution.

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



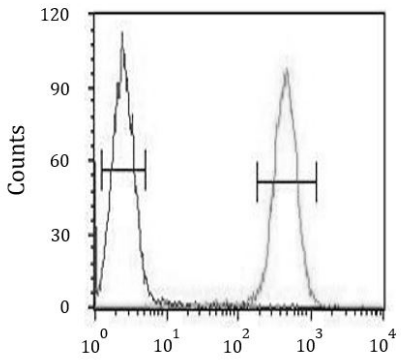
ARG55233 anti-HDAC2 antibody WB image

Western blot: 30 µg of HeLa, Jurkat, HEK293T, NIH-3T3 and Mouse brain lysates stained with ARG55233 anti-HDAC2 antibody at 1:500 dilution.



ARG55233 anti-HDAC2 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human lung carcinoma stained with ARG55233 anti-HDAC2 antibody.



ARG55233 anti-HDAC2 antibody FACS image

Flow Cytometry: K562 cells stained with ARG55233 anti-HDAC2 antibody (right histogram) or without primary antibody control (left histogram), followed by incubation with FITC labelled secondary antibody.