ARG58293
anti-HDAC2 antibody [3B1]

Package: 50 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [3B1] recognizes HDAC2
Tested Reactivity	Hu
Tested Application	FACS, ICC/IF, WB
Host	Mouse
Clonality	Monoclonal
Clone	3B1
Isotype	IgG2b, kappa
Target Name	HDAC2
Species	Human
Immunogen	Recombinant protein corresponding to aa. 1-488 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	2 - 5 µg/10^6 cells
ICC/IF	1:100
WB	1:1000

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

Properties

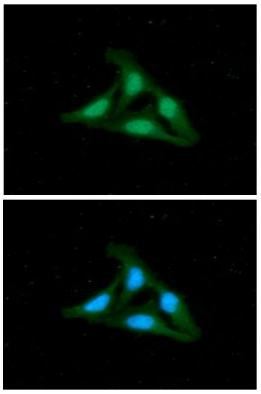
Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS (pH 7.4), 0.02% Sodium azide and 10% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	10% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, 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.

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

Bioinformation

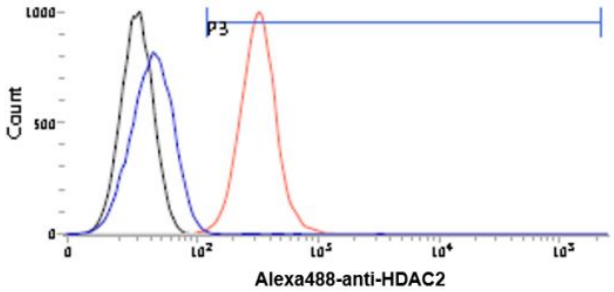
Gene Symbol	HDAC2
Gene Full Name	histone deacetylase 2
Background	This gene product belongs to the histone deacetylase family. Histone deacetylases act via the formation of large multiprotein complexes, and are responsible for the deacetylation of lysine residues at the N-terminal regions of core histones (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]
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). [UniProt]

Images



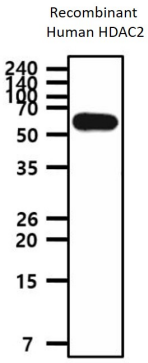
ARG58293 anti-HDAC2 antibody [3B1] ICC/IF image

Immunofluorescence: HeLa cells stained with ARG58293 anti-HDAC2 antibody [3B1] (green) at 1:100 dilution. DAPI was stained the cell nucleus (blue).



ARG58293 anti-HDAC2 antibody [3B1] FACS image

Flow Cytometry: A549 cells stained with ARG58293 anti-HDAC2 antibody [3B1] at 2-5 µg / 10^6cells (red). A Goat-anti Mouse IgG (Alexa fluor 488) was used as the secondary antibody. Mouse monoclonal IgG was used as the isotype control (blue), cells without incubation with primary and secondary antibody was used as the negative control (black).



ARG58293 anti-HDAC2 antibody [3B1] WB image

Western blot: 50 ng of Recombinant Human HDAC2 protein stained with ARG58293 anti-HDAC2 antibody [3B1] at 1:1000 dilution.