Anti-HDAC2 Antibody

R1601-7

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 55 kDa

Description: In the intact cell, DNA closely associates with histones and other nuclear proteins to form chromatin. The remodeling of chromatin is believed to be a critical component of transcriptional regulation, and a major source of this remodeling is brought about by the acetylation of nucleosomal histones. Acetylation of lysine residues in the amino terminal tail domain of histone results in an allosteric change in the nucleosomal conformation and an increased accessibility to transcription factors by DNA. Conversely, the deacetylation of histones is associated with transcriptional silencing. Several mammalian proteins have been identified as nuclear histone acetylases, including GCN5, PCAF (for p300/CBP-associated factor), p300/CBP and the TFIID subunit TAF II p250. Mammalian HDAC1 (also designated HD1) and HDAC2 (also designated mammalian RPD3), both of which are related to the yeast transcriptional regulator Rpd3p, have been identified as histone deacetylases.

Immunogen: Recombinant protein within C-terminal human Histone Deacetylase 2.

Positive control: SH-SY5Y cell lysate, 293T cell lysate, Hela cell lysate, PC-12 cell lysate, Wild-type Hela whole cell lysate, LOVO, NIH/3T3, SH-SY5Y, human tonsil tissue, human colon cancer tissue, human kidney tissue, mouse brain tissue.

Subcellular location: Nucleus, Cytoplasm.

Database links: SwissProt: Q92769 Human | P70288 Mouse | B1WBY8 Rat

Recommended Dilutions:

WB	1:500-1:1,000
IF-Cell	1:500-1:2,000
IHC-P	1:100-1:200
FC	1:50-1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

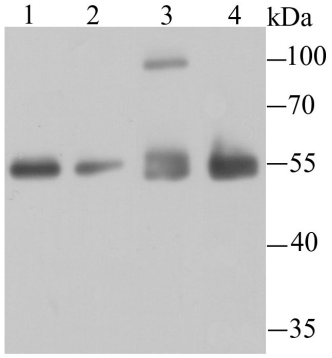

Fig1: Western blot analysis of HDAC2 on different cell lysates using anti-HDAC2 antibody at 1/1,000 dilution.
Positive control:
Lane 1: SH-SY5Y cell lysate
Lane 2: 293T cell lysate
Lane 3: Hela cell lysate
Lane 4: PC-12 cell lysate

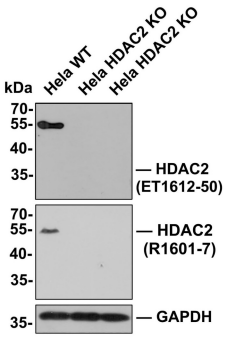

Fig2: All lanes: Western blot analysis of HDAC2 with anti-HDAC2 antibody (R1601-7) at 1/500 dilution.
Lane 1: Wild-type Hela whole cell lysate (10 µg).
Lane 2/3: HDAC2 knockout Hela whole cell lysate (10 µg).

R1601-7 was shown to specifically react with HDAC2 in wild-type Hela cells. No bands were observed when HDAC2 knockout sample were tested. Wild-type and HDAC2 knockout samples were subjected to SDS-PAGE. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM in TBST for 1 hour at room temperature. The primary antibody (R1601-7, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG-HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

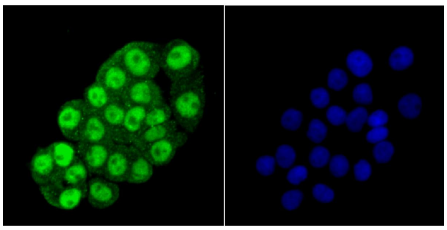

Fig3: ICC staining HDAC2 in LOVO cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

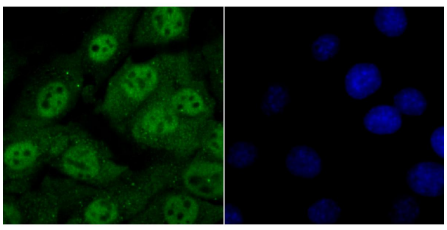

Fig4: ICC staining HDAC2 in NIH/3T3 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

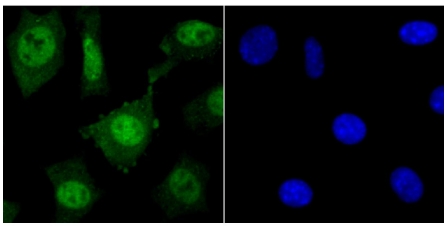

Fig5: ICC staining HDAC2 in SH-SY5Y cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

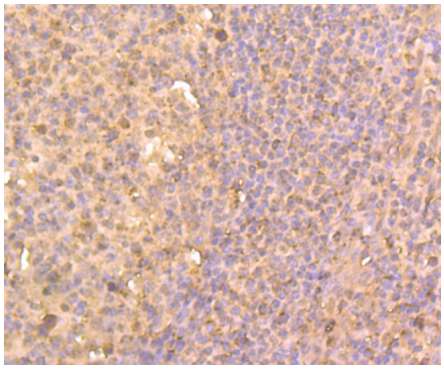

Fig6: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-HDAC2 antibody. Counter stained with hematoxylin.

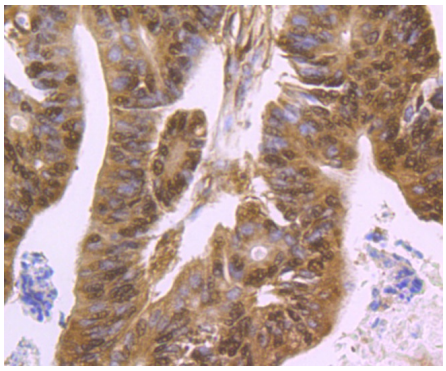

Fig7: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue using anti-HDAC2 antibody. Counter stained with hematoxylin.

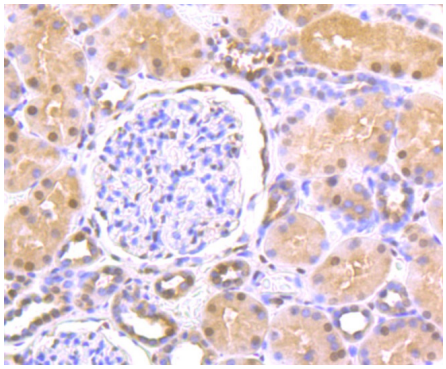

Fig8: Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-HDAC2 antibody. Counter stained with hematoxylin.

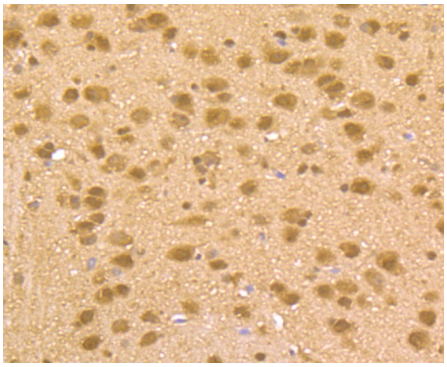

Fig9: Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-HDAC2 antibody. Counter stained with hematoxylin.

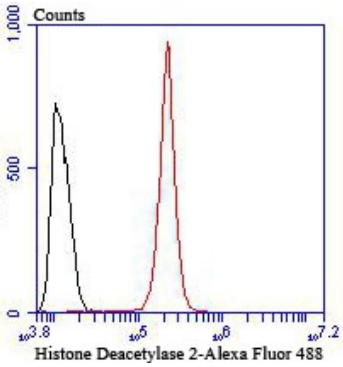

Fig10: Flow cytometric analysis of SH-SY5Y cells with HDAC2 antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black).

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