Anti-HDAC3 Antibody [B2-G9]

M1511-3

Product Type:	Mouse monoclonal IgG2b, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 49 kDa
Clone number:	B2-G9

Description: 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 histone deacetylase/acuc/apha family. It has histone deacetylase activity and represses transcription when tethered to a promoter. It may participate in the regulation of transcription through its binding with the zinc-finger transcription factor YY1. This protein can also down-regulate p53 function and thus modulate cell growth and apoptosis. This gene is regarded as a potential tumor suppressor gene.

Immunogen: Synthetic peptide within C-terminal human HDAC3.

Positive control: MCF-7 lysate, PC-12 cell lysate, NIH/3T3, human endometrial cancer tissue, human ovary cancer tissue, human colon tissue, mouse colon tissue, rat colon tissue.

Subcellular location: Cytosol, Nucleus, Cytoplasm.

Database links: SwissProt: O15379 Human | O88895 Mouse | Q6P6W3 Rat

Recommended Dilutions:

WB	1:1,000-1:2,000
IF-Cell	1:2,000
IHC-P	1:10,000-1:200,000

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Immunogen affinity purified.

Images

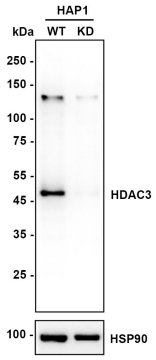


Fig1: Western blot analysis of HDAC3 on different lysates with Mouse anti-HDAC3 antibody (M1511-3) at 1/2,000 dilution.

Lane 1: HAP1-parental cell lysate (10 µg/Lane)
Lane 2: HAP1-HDAC3 KD cell lysate (10 µg/Lane)

Predicted band size: 49 kDa
Observed band size: 49 kDa

Exposure time: 9 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (M1511-3) at 1/2,000 dilution was used in K1803 at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

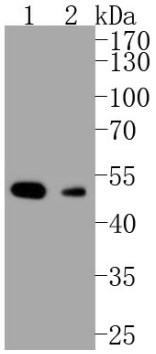
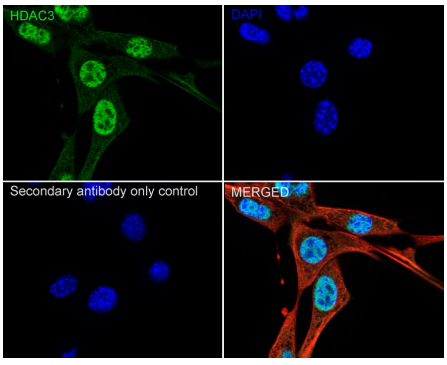


Fig2: Western blot analysis of HDAC3 on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (M1511-3, 1/1,000) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:5,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: MCF-7 lysate
Lane 2: PC-12 cell lysate

Fig3: Immunocytochemistry analysis of NIH/3T3 cells labeling HDAC3 with Mouse anti-HDAC3 antibody (M1511-3) at 1/2,000 dilution.



Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-HDAC3 antibody (M1511-3) at 1/2,000 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

beta Tubulin (ET1602-4, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.

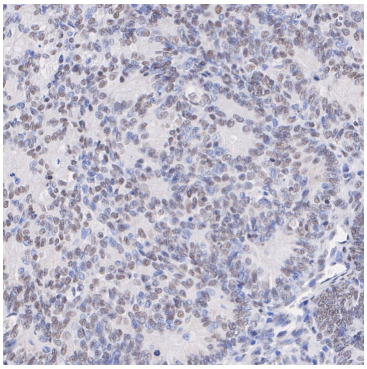


Fig4: Immunohistochemical analysis of paraffin-embedded human endometrial cancer tissue with Mouse anti-HDAC3 antibody (M1511-3) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (M1511-3) at 1/10,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

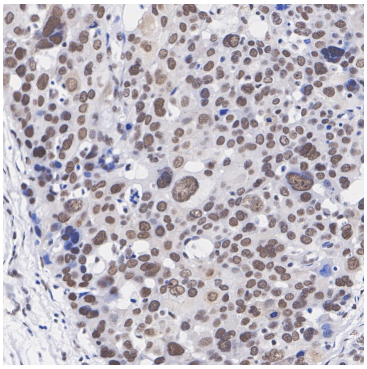


Fig5: Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue with Mouse anti-HDAC3 antibody (M1511-3) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (M1511-3) at 1/10,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

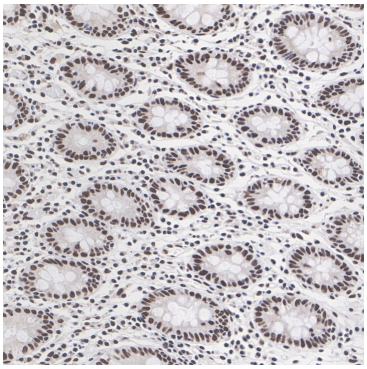


Fig6: Immunohistochemical analysis of paraffin-embedded human colon tissue with Mouse anti-HDAC3 antibody (M1511-3) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (M1511-3) at 1/10,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

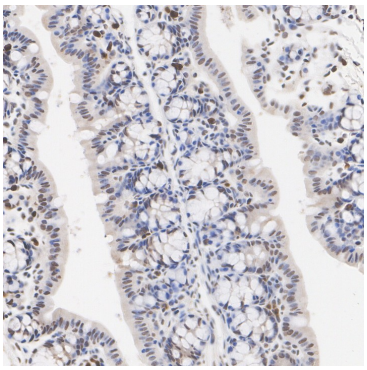


Fig7: Immunohistochemical analysis of paraffin-embedded mouse colon tissue with Mouse anti-HDAC3 antibody (M1511-3) at 1/200,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (M1511-3) at 1/200,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

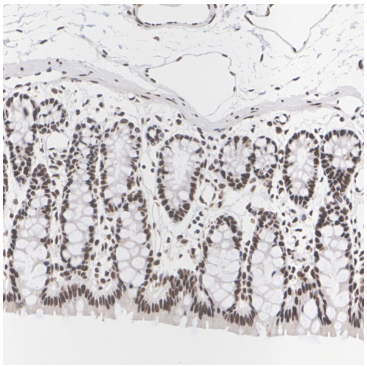


Fig8: Immunohistochemical analysis of paraffin-embedded rat colon tissue with Mouse anti-HDAC3 antibody (M1511-3) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (M1511-3) at 1/10,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. FcεRI-HDAC3-MCP1 Signaling Axis Promotes Passive Anaphylaxis Mediated by Cellular Interactions. Kim M. et. al. Int J Mol Sci. 2019 Oct
2. Role of HDAC3-miRNA-CAGE Network in Anti-Cancer Drug-Resistance. Kwon Y. et. al. Int J Mol Sci. 2018 Dec