Anti-ERK1 Antibody [SP05-09]

ET1604-16

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IF-Tissue, IHC-P, FC
Molecular Wt:	Predicted band size: 43 kDa
Clone number:	SP05-09

Description: ERK 1 antibody ERK antibody ERK-1 antibody ERK1 antibody ERT 2 antibody ERT2 antibody Extracellular Signal Regulated Kinase 1 antibody Extracellular signal related kinase 1 antibody Extracellular signal-regulated kinase 1 antibody HGNC6877 antibody HS44KDAP antibody HUMKER1A antibody Insulin Stimulated MAP2 Kinase antibody Insulin-stimulated MAP2 kinase antibody MAP kinase 1 antibody MAP kinase 3 antibody MAP Kinase antibody MAP kinase isoform p44 antibody MAPK 1 antibody MAPK 3 antibody MAPK antibody MAPK1 antibody Mapk3 antibody MGC20180 antibody Microtubule Associated Protein 2 Kinase antibody Microtubule-associated protein 2 kinase antibody Mitogen Activated Protein Kinase 3 antibody Mitogen-activated protein kinase 1 antibody Mitogen-activated protein kinase 3 antibody MK03_HUMAN antibody OTTHUMP00000174538 antibody OTTHUMP00000174541 antibody p44 ERK1 antibody p44 MAPK antibody p44-ERK1 antibody p44-MAPK antibody P44ERK1 antibody P44MAPK antibody PRKM 3 antibody PRKM3 antibody Protein Kinase Mitogen Activated 3 antibody

Immunogen: Synthetic peptide within Human ERK1 aa 51-100 / 379.

Positive control: HeLa cell lysate, Jurkat cell lysate, A549 cell lysate, Ramos cell lysate, MCF7 cell lysate, Neuro-2a cell lysate, C6 cell lysate, Neuro-2a, C6, human colon tissue, mouse colon tissue, rat colon tissue, HeLa.

Subcellular location: Cytoplasm, Nucleus.

Database links: SwissProt: P27361 Human | Q63844 Mouse | P21708 Rat

Recommended Dilutions:

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

Storage Buffer: 1*TBS (pH7.4), 0.05% 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: Protein A affinity purified.

Images

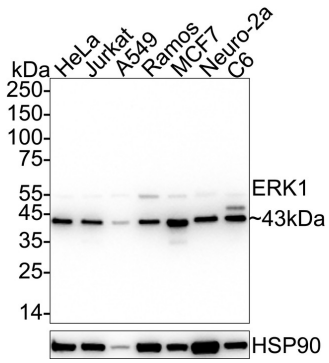

Fig1: Western blot analysis of ERK1 on different lysates with Rabbit anti-ERK1 antibody (ET1604-16) at 1/2,000 dilution.

Lane 1: HeLa cell lysate
Lane 2: Jurkat cell lysate
Lane 3: A549 cell lysate
Lane 4: Ramos cell lysate
Lane 5: MCF7 cell lysate
Lane 6: Neuro-2a cell lysate
Lane 7: C6 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 43 kDa
Observed band size: 43 kDa

Exposure time: 10 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 (ET1604-16) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

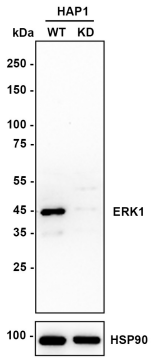

Fig2: Western blot analysis of ERK1 on different lysates with Rabbit anti-ERK1 antibody (ET1604-16) at 1/5,000 dilution.

Lane 1: HAP1-parental cell lysate
Lane 2: HAP1-ERK1 KD cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 43 kDa
Observed band size: 43 kDa

Exposure time: 2 minutes; 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 (ET1604-16) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

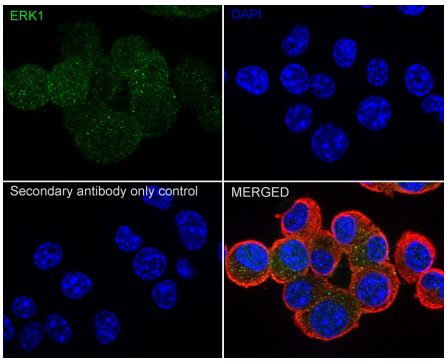

Fig3: Immunocytochemistry analysis of Neuro-2a cells labeling ERK1 with Rabbit anti-ERK1 antibody (ET1604-16) at 1/50 dilution.

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 Rabbit anti-ERK1 antibody (ET1604-16) at 1/50 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) 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 (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

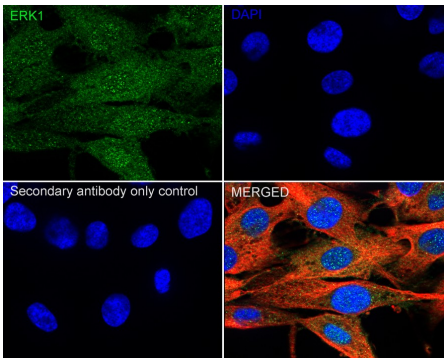

Fig4: Immunocytochemistry analysis of C6 cells labeling ERK1 with Rabbit anti-ERK1 antibody (ET1604-16) at 1/100 dilution.

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 Rabbit anti-ERK1 antibody (ET1604-16) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) 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.

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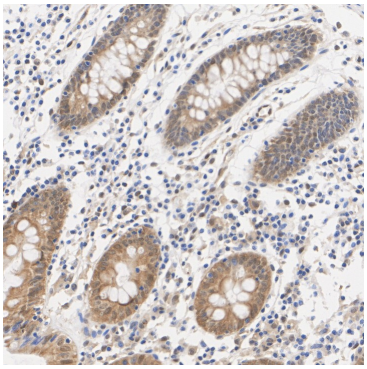

Fig5: Immunohistochemical analysis of paraffin-embedded human colon tissue with Rabbit anti-ERK1 antibody (ET1604-16) at 1/200 dilution.

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 (ET1604-16) at 1/200 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.

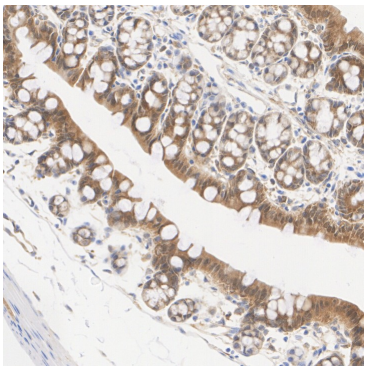

Fig6: Immunohistochemical analysis of paraffin-embedded mouse colon tissue with Rabbit anti-ERK1 antibody (ET1604-16) at 1/1,000 dilution.

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 (ET1604-16) at 1/1,000 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.

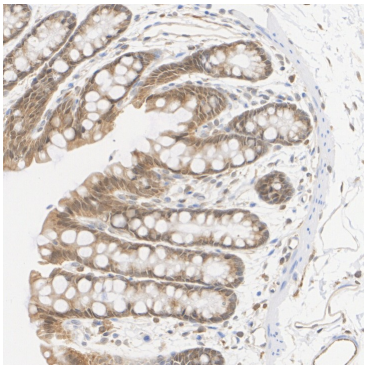

Fig7: Immunohistochemical analysis of paraffin-embedded rat colon tissue with Rabbit anti-ERK1 antibody (ET1604-16) at 1/1,000 dilution.

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 (ET1604-16) at 1/1,000 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.

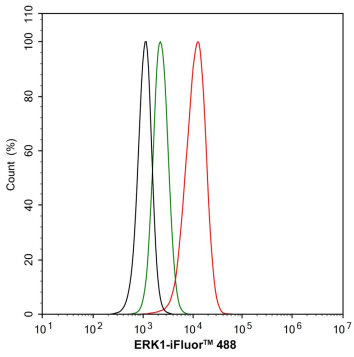

Fig8: Flow cytometric analysis of HeLa cells labeling ERK1.

Cells were fixed and permeabilized. Then stained with the primary antibody (ET1604-16, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

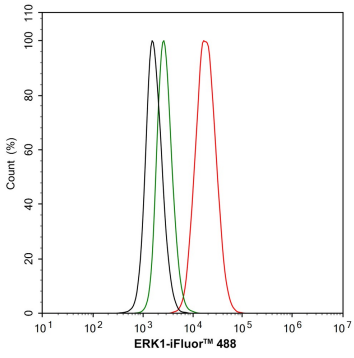

Fig9: Flow cytometric analysis of C6 cells labeling ERK1.

Cells were fixed and permeabilized. Then stained with the primary antibody (ET1604-16, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Tor YS et al. Induction of Apoptosis in MCF-7 Cells via Oxidative Stress Generation, Mitochondria-Dependent and Caspase-Independent Pathway by Ethyl Acetate Extract of Dillenia suffruticosa and Its Chemical Profile. PLoS One 10:e0127441 (2015).
2. Dakhova O et al. Global gene expression analysis of reactive stroma in prostate cancer. Clin Cancer Res 15:3979-89 (2009).