Product Name: ERK1/2(1H4)Mouse Monoclonal Antibody
Catalog #: AMM10602

Summary

Production Name	ERK1/2(1H4)Mouse Monoclonal Antibody
Description	Mouse Monoclonal Antibody
Host	Mouse
Application	WB,IHC-P,IF-P,IF-F,ICC/IF
Reactivity	Human,Rat,Mouse,Fish

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	MAPK1/MAPK3
Alternative Names	MAPK1/MAPK3
Gene ID	5594/5595
SwissProt ID	P27361/P28482.Synthetic Peptide of ERK1/2 at AA range of 140-220

Application

Dilution Ratio	WB 1:1000-2000, IHC-P 1:100-200, IF-P/IF-F/ICC/IF 1:50-200
Molecular Weight	44,42kDa

Background

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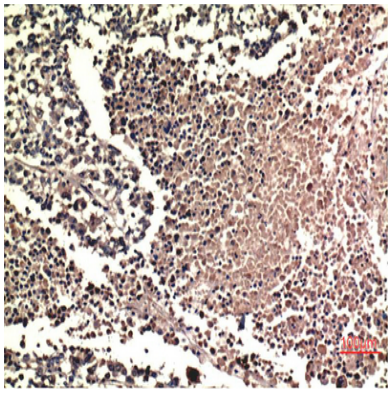
The protein encoded by this gene is a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act in a signaling cascade that regulates various cellular processes such as proliferation, differentiation, and cell cycle progression in response to a variety of extracellular signals. This kinase is activated by upstream kinases, resulting in its translocation to the nucleus where it phosphorylates nuclear targets. Alternatively spliced transcript variants encoding different protein isoforms have been described. [provided by RefSeq, Jul 2008],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,domain:The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.,enzyme regulation:Activated by tyrosine phosphorylation in response to insulin and NGF.,function:Involved in both the initiation and regulation of meiosis, mitosis, and postmitotic functions in differentiated cells by phosphorylating a number of transcription factors such as ELK-1. Phosphorylates EIF4EBP1; required for initiation of translation. Phosphorylates microtubule-associated protein 2 (MAP2). Phosphorylates SPZ1 (By similarity). Phosphorylates heat shock factor protein 4 (HSF4).,PTM:Dually phosphorylated on Thr-202 and Tyr-204, which activates the enzyme.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Interacts with MORG1 (By similarity). Binds to HIV-1 Nef. This interaction inhibits its kinase activity. Interacts with HSF4 and NISCH.,

Research Area

MAPK_ERK_Growth;MAPK_G_Protein;ErbB_HER;Chemokine;Oocyte meiosis;mTOR;Vascular smooth muscle contraction;Dorso-ventral axis formation;TGF-beta;Axon guidance;VEGF;Focal adhesion;Adherens_Junction;Gap junction;Toll_Like;NOD-like receptor;Natural killer cell mediated cytotoxicity;T_Cell_Receptor;B_Cell_Antigen;Fc epsilon RI;Fc gamma R-mediated phagocytosis;Long-term potentiation;Neurotrophin;Long-term depression;Regulates Actin and Cytoskeleton;Insulin_Receptor;GnRH;Progesterone-mediated oocyte maturation;Melanogenesis;Type II diabetes mellitus;Aldosterone-regulated sodium reabsorption;Alzheimer's disease;Prion diseases;Pathways in cancer;Colorectal cancer;Renal cell carcinoma;Pancreatic cancer;Endometrial cancer;Glioma;Prostate cancer;Thyroid cancer;Melanoma;Bladder cancer;Chronic myeloid leukemia;Acute myeloid leukemia;Non-small cell lung cancer;

Image Data



Immunohistochemical analysis of paraffin-embedded Human Lung Carcinoma Tissue using ERK1/2 Mouse mAb diluted at

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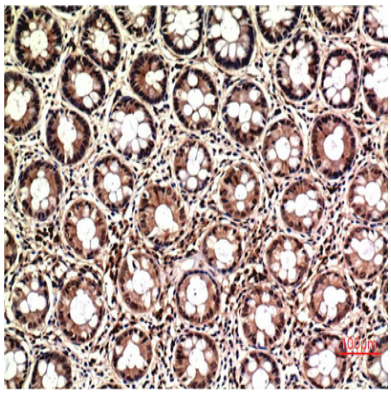
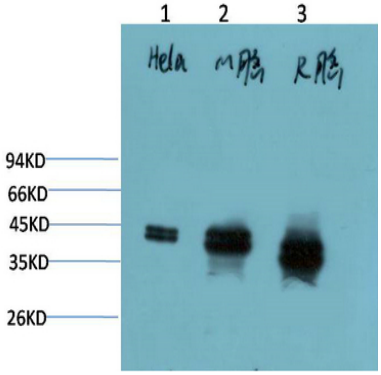
1:200.



Immunohistochemical analysis of paraffin-embedded Human Colon Carcinoma Tissue using ERK1/2 Mouse mAb diluted at 1:200.



Western blot analysis of 1） Hela Cell Lysate, 2）Mouse Brain Tissue Lysate, 3） Rat Brain Tissue Lysate using ERK1/2 Mouse mAb diluted at 1:2000.

Note

For research use only.