

Product Name: ERK 1/2 (phospho Tyr204) Rabbit Polyclonal Antibody
Catalog #: APRab04633

Summary

Production Name	ERK 1/2 (phospho Tyr204) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,IF,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
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 MAPK3; ERK1; PRKM3; Mitogen-activated protein kinase 3; MAP kinase 3; MAPK 3;
Alternative Names	ERT2; Extracellular signal-regulated kinase 1; ERK-1; Insulin-stimulated MAP2 kinase; MAP kinase isoform p44; p44-MAPK; Microtubule-associated protein 2 kinase; p
Gene ID	5595/5594 P27361/P28482.The antiserum was produced against synthesized peptide derived from
SwissProt ID	human p44/42 MAP Kinase around the phosphorylation site of Tyr204. AA range:170-219

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in
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other applications.

Molecular Weight 44+42kD

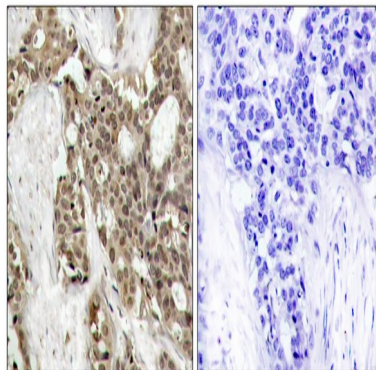
Background

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 MORF1 (By similarity). Binds to HIV-1 Nef. This interaction inhibits its kinase activity. Interacts with HSF4 and NISCH.,

Research Area

Regulates Angiogenesis; Regulation_Microtubule; Regulation of Actin Dynamics; Stem cell pathway; T_Cell_Receptor; Insulin Receptor; Cell Growth; Toll_Like; MAPK_ERK_Growth; MAPK_G_Protein; B_Cell_Antigen; PI3K/Akt; mTOR

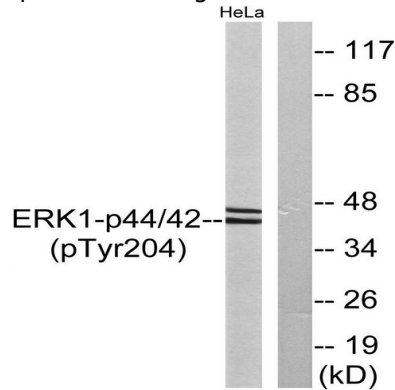
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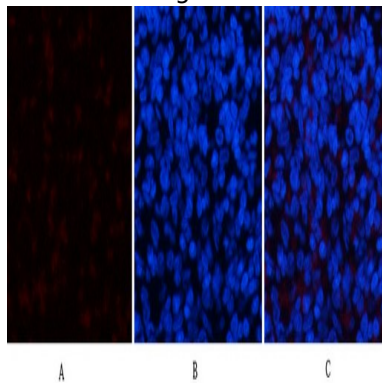
Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using p44/42 MAP Kinase (Phospho-

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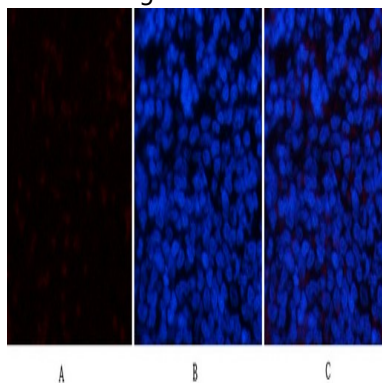
Tyr204) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from HeLa cells treated with EGF 200ng/ml 30', using p44/42 MAP Kinase (Phospho-Tyr204) Antibody. The lane on the right is blocked with the phospho peptide.

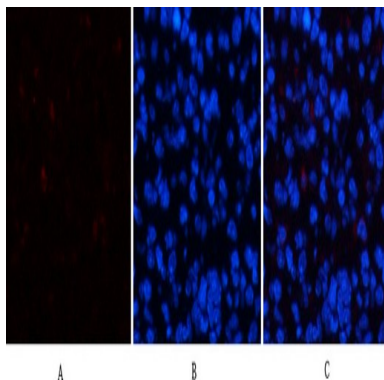


Immunofluorescence analysis of rat-spleen tissue. 1, ERK 1/2 (phospho Tyr204) Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

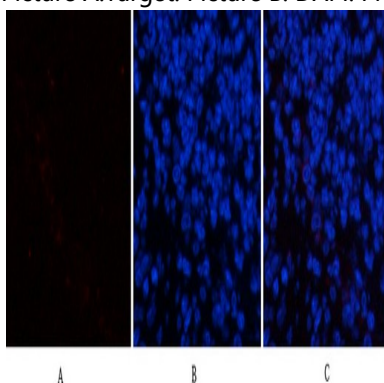


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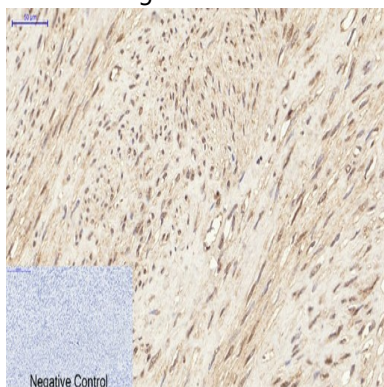
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Immunofluorescence analysis of mouse-spleen tissue. 1, ERK 1/2 (phospho Tyr204) Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

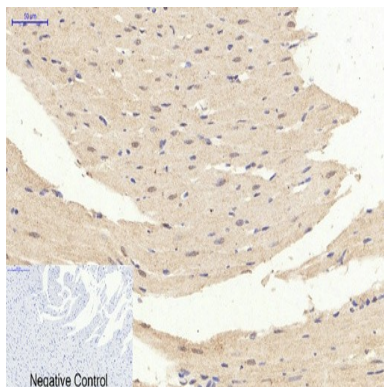


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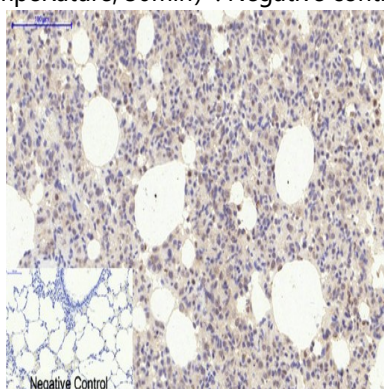


Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1, ERK 1/2 (phospho Tyr204) Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.

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Immunohistochemical analysis of paraffin-embedded Rat-heart tissue. 1, ERK 1/2 (phospho Tyr204) Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Rat-lung tissue. 1, ERK 1/2 (phospho Tyr204) Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.

Note

For research use only.