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**Product Name: ERK 2 Rabbit Polyclonal Antibody****Catalog #: APRab10595**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:10000
<b>Molecular Weight</b>	48kDa

**Antigen Information**

<b>Gene Name</b>	MAPK1 MAPK1; ERK2; PRKM1; PRKM2; Mitogen-activated protein kinase 1; MAP kinase 1; MAPK 1;
<b>Alternative Names</b>	ERT1; Extracellular signal-regulated kinase 2; ERK-2; MAP kinase isoform p42; p42-MAPK; Mitogen-activated protein kinase 2; MAP kinase 2; MAPK 2
<b>Gene ID</b>	5594.0
<b>SwissProt ID</b>	P28482
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human p42 MAPK. AA range:136-185

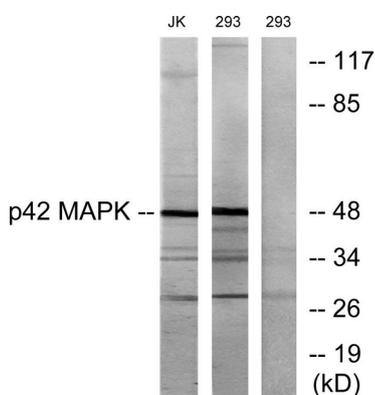
## Background

This gene encodes a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. The activation of this kinase requires its phosphorylation by upstream kinases. Upon activation, this kinase translocates to the nucleus of the stimulated cells, where it phosphorylates nuclear targets. One study also suggests that this protein acts as a transcriptional repressor independent of its kinase activity. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Two alternatively spliced transcript variants encoding the same protein, but differing in the UTRs, have been reported. 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 phosphorylation on tyrosine and threonine in response to insulin and NGF. Both phosphorylations are required for activity., 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 ELK1. Phosphorylates EIF4EBP1; required for initiation of translation. Phosphorylates microtubule-associated protein 2 (MAP2). Phosphorylates SPZ1 (By similarity). Phosphorylates heat shock factor protein 4 (HSF4) and ARHGEF2., online information:Extracellular signal-regulated kinase entry, PTM:Dually phosphorylated on Thr-185 and Tyr-187, 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 through its SH3 domain. This interaction inhibits its tyrosine-kinase activity. Interacts with its substrates HSF4 and ARHGEF2. Interacts with NISCH.,

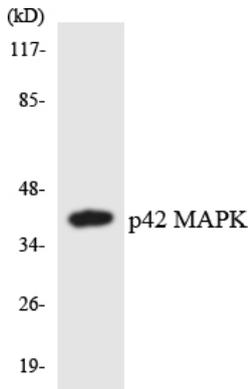
## Research Area

Regulates Angiogenesis; Regulation\_Microtubule; Regulation of Actin Dynamics; Stem cell pathway; T\_Cell\_Receptor; Cell Growth; Insulin Receptor; Toll\_Like; MAPK\_ERK\_Growth;MAPK\_G\_Protein; ErbB/HER; B\_Cell\_Antigen; PI3K/Akt; mTOR

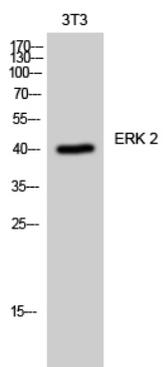
## Image Data



Western blot analysis of lysates from Jurkat and 293 cells, using p42 MAPK Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HUVEC cells using p42 MAPK antibody.



Western Blot analysis of 3T3 cells using ERK 2 Polyclonal Antibody diluted at 1 : 2000