

**Product Name: ERK 1/2 (phospho Tyr222/205) Rabbit Polyclonal Antibody**  
**Catalog #: APRab04634**



---

## Summary

<b>Production Name</b>	ERK 1/2 (phospho Tyr222/205) Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	IF, WB, IHC, ELISA
<b>Reactivity</b>	Human, Mouse, Rat

## Performance

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

## Immunogen

<b>Gene Name</b>	MAPK1/MAPK3 MAPK1; ERK2; PRKM1; PRKM2; Mitogen-activated protein kinase 1; MAP kinase 1;
<b>Alternative Names</b>	MAPK 1; ERT1; Extracellular signal-regulated kinase 2; ERK-2; MAP kinase isoform p42; p42-MAPK; Mitogen-activated protein kinase 2; MAP kinase 2; MAPK 2; MAPK3; ER
<b>Gene ID</b>	5594/5595
<b>SwissProt ID</b>	P28482/P27361. Synthesized phospho-peptide around the phosphorylation site of human ERK 1/2 (phospho Tyr222/205)

## Application

<b>Dilution Ratio</b>	IF 1:50-200 WB 1:500-2000, IHC 1:50-300 IHC 1:50-300
<b>Molecular Weight</b>	44kD

**Product Name: ERK 1/2 (phospho Tyr222/205) Rabbit  
Polyclonal Antibody  
Catalog #: APRab04634**

---



## Background

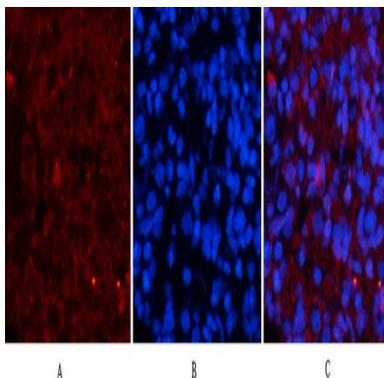
This gene encodes a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation 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

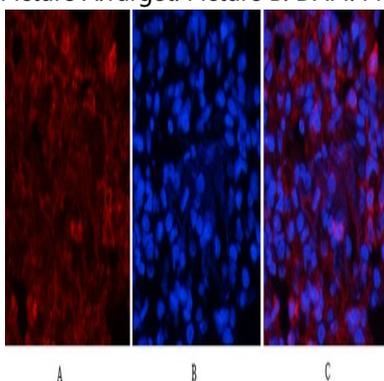
Regulates Angiogenesis; Regulation\_Microtubule; Regulation of Actin Dynamics; Stem cell pathway; T\_Cell\_Receptor; Cell Growth; Insulin Receptor; Toll\_Like; MAPK\_ERK\_Growth; MAPK\_G\_Protein; ErbB/HER; B\_Cell\_Antigen; PI3K/Akt; mTOR

## Image Data

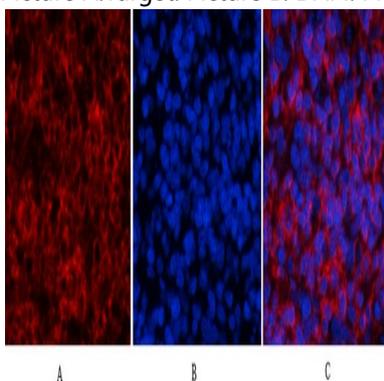
**Product Name: ERK 1/2 (phospho Tyr222/205) Rabbit Polyclonal Antibody**  
**Catalog #: APRab04634**



Immunofluorescence analysis of rat-lung tissue. 1,ERK 1/2 (phospho Tyr222/205) Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labled 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

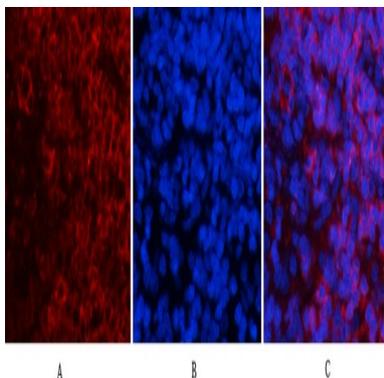


Immunofluorescence analysis of rat-lung tissue. 1,ERK 1/2 (phospho Tyr222/205) Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

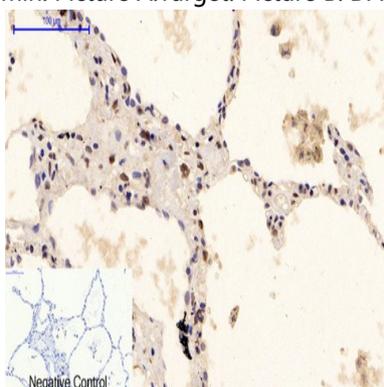


Immunofluorescence analysis of rat-spleen tissue. 1,ERK 1/2 (phospho Tyr222/205) Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

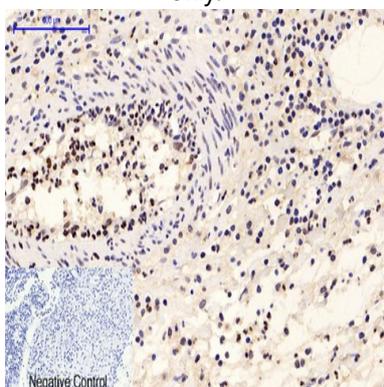
**Product Name: ERK 1/2 (phospho Tyr222/205) Rabbit Polyclonal Antibody**  
**Catalog #: APRab04634**



Immunofluorescence analysis of rat-spleen tissue. 1,ERK 1/2 (phospho Tyr222/205) 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



Immunohistochemical analysis of paraffin-embedded Human-lung tissue. 1,ERK 1/2 (phospho Tyr222/205) 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.

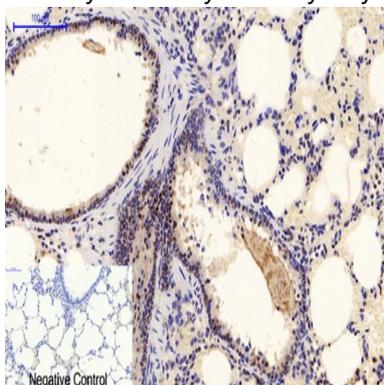


Immunohistochemical analysis of paraffin-embedded Human-Appendix tissue. 1,ERK 1/2 (phospho Tyr222/205) Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room temperature, 30min) . Negative control was

**Product Name: ERK 1/2 (phospho Tyr222/205) Rabbit Polyclonal Antibody**  
**Catalog #: APRab04634**

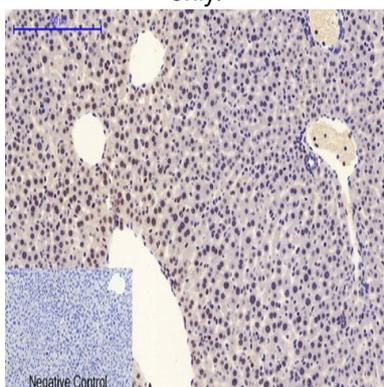


used by secondary antibody only.



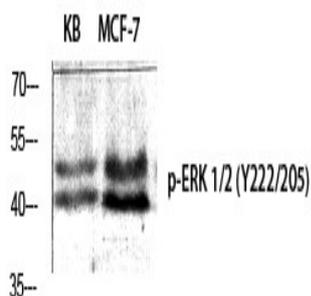
Immunohistochemical analysis of paraffin-embedded Rat-lung tissue. 1,ERK 1/2 (phospho Tyr222/205) Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room temperature, 30min) . Negative control was used by secondary antibody

only.



Immunohistochemical analysis of paraffin-embedded Mouse-liver tissue. 1,ERK 1/2 (phospho Tyr222/205) 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.



Western Blot analysis of various cells using Phospho-ERK 1/2 (Y222/205) Polyclonal Antibody diluted at 1: 500

**Product Name: ERK 1/2 (phospho Tyr222/205) Rabbit  
Polyclonal Antibody  
Catalog #: APRab04634**

---



**Note**

For research use only.