ERK 1/2 (Phospho Tyr222/205) Rabbit pAb

CatalogNo: YP0497 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- IF,WB,IHC,ELISA

MW
- 44kD (Observed)

Isotype
- IgG

Recommended Dilution Ratios

IF 1:50-200
WB 1:500-2000
IHC 1:50-300

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	Synthesized phospho-peptide around the phosphorylation site of human ERK 1/2 (phospho Tyr222/205)

Specificity	This antibody detects endogenous levels of p44 and p42 MAP Kinase (Erk1 and Erk2) when dually phosphorylated at Thr222 of Erk1 (Thr205 of Erk2).The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):KGyTK

Target Information

Gene name MAPK1/MAPK3

Protein Name Mitogen-activated protein kinase 1

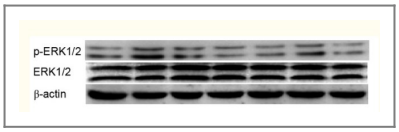
Organism	Gene ID	UniProt ID
Human	5594; 5595;	P28482; P27361;
Mouse	26417; 26413;	
Rat	116590; 50689;	P63086; P21708;

Cellular Localization Cytoplasm, cytoskeleton, spindle . Nucleus . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm . Membrane, caveola . Cell junction, focal adhesion . Associated with the spindle during prometaphase and metaphase (By similarity). PEA15-binding and phosphorylated DAPK1 promote its cytoplasmic retention. Phosphorylation at Ser- 246 and Ser-248 as well as autophosphorylation at Thr-190 promote nuclear localization. .

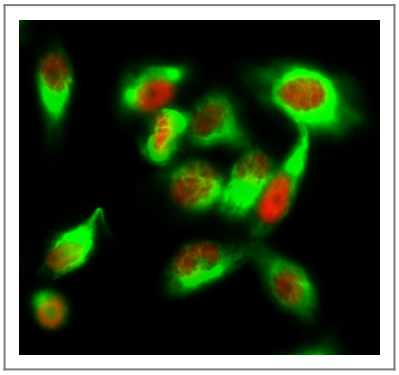
Tissue specificity Brain,Epithelium,Lung,Platelet,T-cell,

Function 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.,

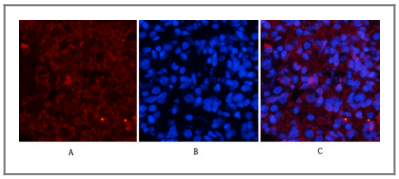
Validation Data



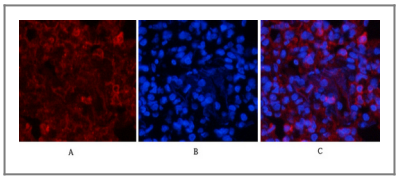
Xu, Yini, et al. "Inhibitory effects of oxymatrine on TGF-β1-induced proliferation and abnormal differentiation in rat cardiac fibroblasts via the p38MAPK and ERK1/2 signaling pathways." Molecular medicine reports 16.4 (2017): 5354-5362.



Immunofluorescence analysis of Hela cell. 1,ERK 1/2 (phospho Tyr222/205) Polyclonal Antibody(red) was diluted at 1:200(4° overnight). β-tubulin Monoclonal Antibody(M7)(green) was diluted at 1:200(4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog:RS3611 was diluted at 1:1000(room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog:RS3208 was diluted at 1:1000(room temperature, 50min).



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



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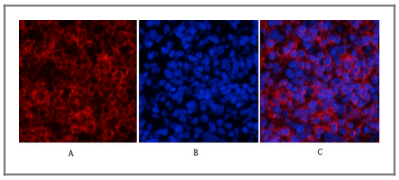
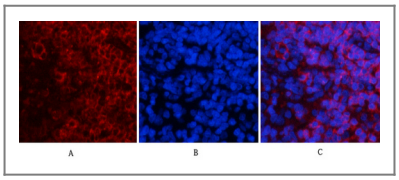


Immunofluorescence analysis of rat-spleen tissue. 1,ERK 1/2 (phospho Tyr222/205) Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge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



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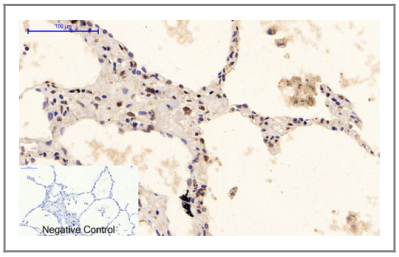
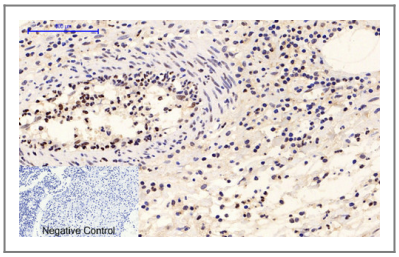
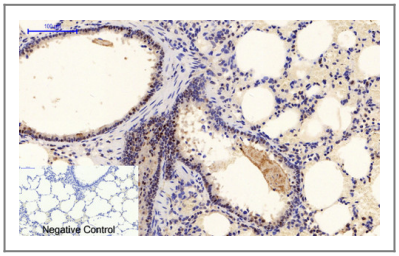


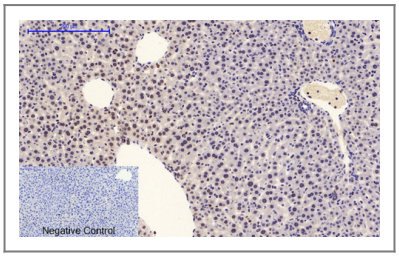
Immunohistochemical analysis of paraffin-embedded Human-lung tissue. 1,ERK 1/2 (phospho Tyr222/205) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative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



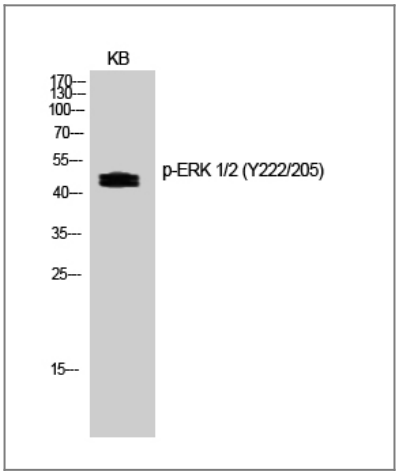
Immunohistochemical analysis of paraffin-embedded Human-Appendix tissue. 1,ERK 1/2 (phospho Tyr222/205) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was 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 KB cells using Phospho-ERK 1/2 (Y222/205) Polyclonal Antibody diluted at 1:500

Contact information

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Please scan the QR code to access additional product information: **ERK 1/2 (Phospho Tyr222/205) Rabbit pAb**