

**ERK 1/2 (phospho Tyr204) Polyclonal Antibody**

<b>Catalog No :</b>	YP0101
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	ERK 1/2
<b>Fields :</b>	>>EGFR tyrosine kinase inhibitor resistance;>>Endocrine resistance;>>Platinum drug resistance;>>MAPK signaling pathway;>>ErbB signaling pathway;>>Ras signaling pathway;>>Rap1 signaling pathway;>>cGMP-PKG signaling pathway;>>cAMP signaling pathway;>>Chemokine signaling pathway;>>HIF-1 signaling pathway;>>FoxO signaling pathway;>>Sphingolipid signaling pathway;>>Phospholipase D signaling pathway;>>Oocyte meiosis;>>Autophagy - animal;>>mTOR signaling pathway;>>PI3K-Akt signaling pathway;>>Apoptosis;>>Cellular senescence;>>Adrenergic signaling in cardiomyocytes;>>Vascular smooth muscle contraction;>>TGF-beta signaling pathway;>>Axon guidance;>>VEGF signaling pathway;>>Apelin signaling pathway;>>Osteoclast differentiation;>>Focal adhesion;>>Adherens junction;>>Gap junction;>>Signaling pathways regulating pluripotency of stem cells;>>Platelet activation;>>Neutrophil extracellular trap formation;>>Toll-like receptor signaling pathway;>>NOD-like receptor signaling pathway;>>C-type lectin recep
<b>Gene Name :</b>	MAPK1/MAPK3
<b>Protein Name :</b>	Mitogen-activated protein kinase 3
<b>Human Gene Id :</b>	5595/5594
<b>Human Swiss Prot No :</b>	P27361/P28482
<b>Mouse Gene Id :</b>	26417/26413
<b>Rat Gene Id :</b>	50689/116590
<b>Rat Swiss Prot No :</b>	P21708/P63086
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human p44/42 MAP Kinase around the phosphorylation site of Tyr204. AA

range:170-219

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**Specificity :** Phospho-ERK 1/2 (Y204) Polyclonal Antibody detects endogenous levels of ERK 1/2 protein only when phosphorylated at Y204.

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**Formulation :** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

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**Source :** Polyclonal, Rabbit,IgG

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

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**Purification :** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

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**Concentration :** 1 mg/ml

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**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

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**Observed Band :** 44kD,42kD

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**Cell Pathway :** 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\_Antig

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**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],

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**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 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 kinas

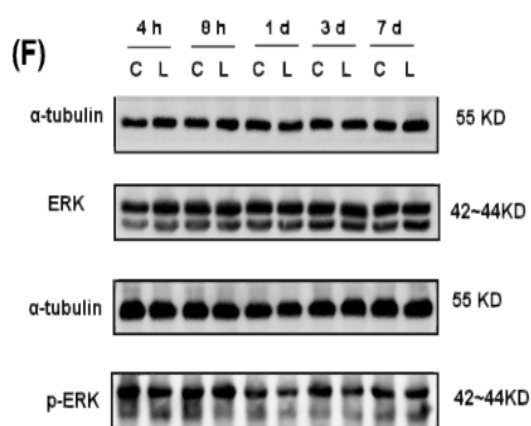
**Subcellular Location :**

Cytoplasm . Nucleus. Membrane, caveola . Cell junction, focal adhesion . Autophosphorylation at Thr-207 promotes nuclear localization (PubMed:19060905). PEA15-binding redirects the biological outcome of MAPK3 kinase-signaling by sequestering MAPK3 into the cytoplasm (By similarity). .

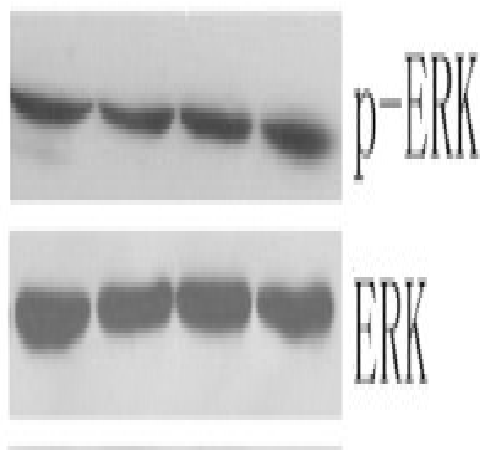
**Expression :**

Epithelium, Eye, Hepatoma, Human cervix, Lymph,

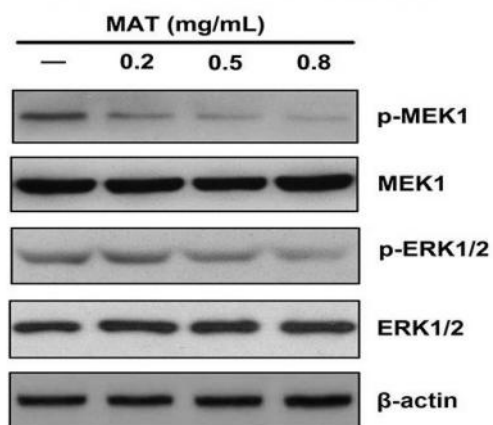
## Products Images



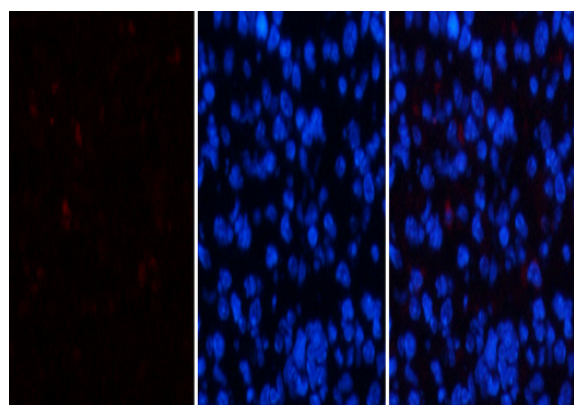
mGluR1/IP3/ERK signaling pathway regulates vestibular compensation in ON UBCs of the cerebellar flocculus. CNS Neuroscience & Therapeutics Sulin Zhang IF Rat 1:200 cerebellum



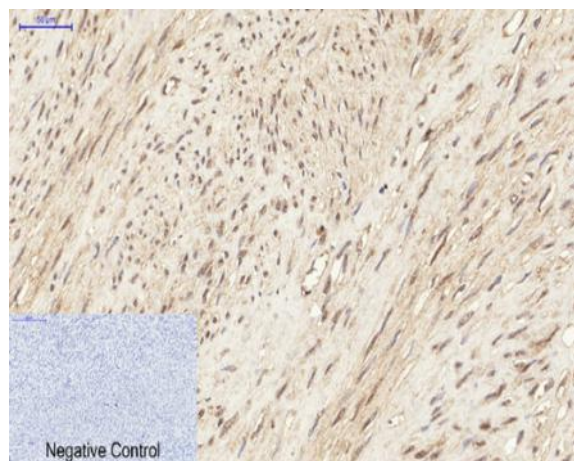
Wang, Xinzhao, et al. "Ad-p53 enhances the sensitivity of triple-negative breast cancer MDA-MB-468 cells to the EGFR inhibitor gefitinib." *Oncology reports* 33.2 (2015): 526-532.



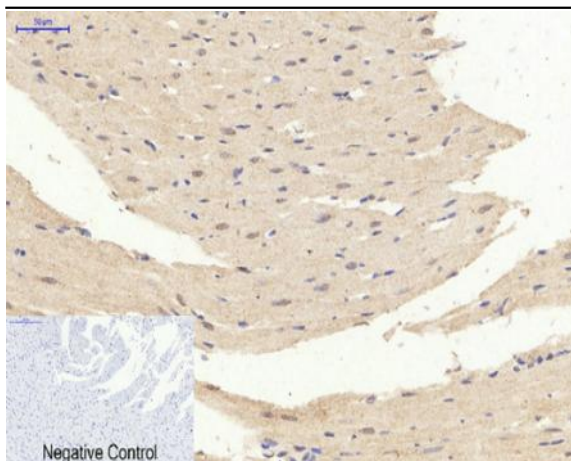
Ma, Lingdi, et al. "Matrine inhibits BCR/ABL mediated ERK/MAPK pathway in human leukemia cells." *Oncotarget* 8.65 (2017): 108880.



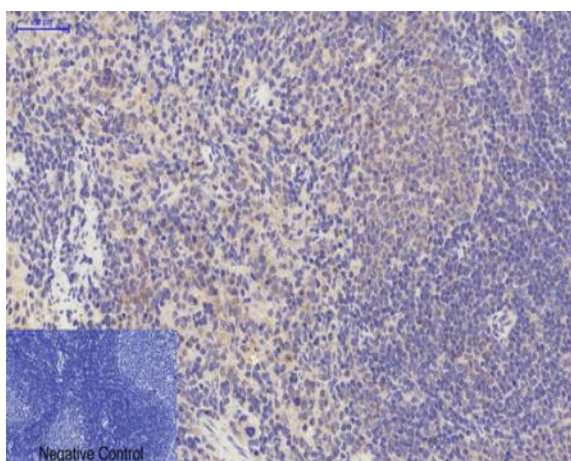
Immunofluorescence analysis of mouse-spleen tissue. 1, ERK 1/2 (phospho Tyr204) Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture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



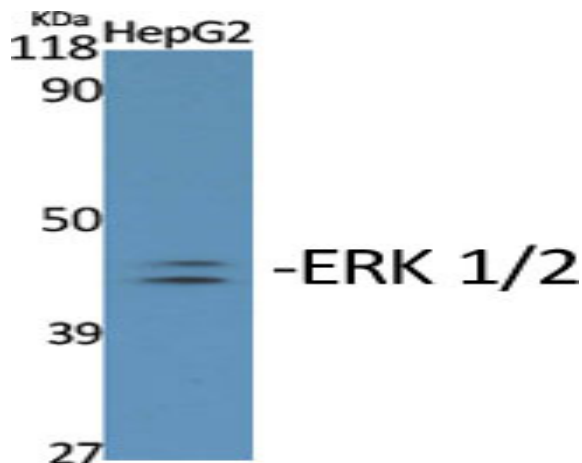
Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1, ERK 1/2 (phospho Tyr204) Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min).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



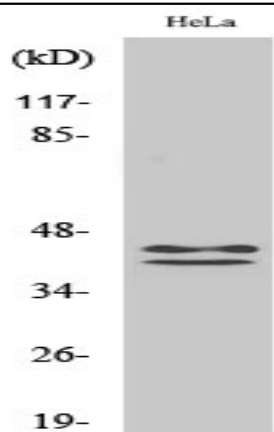
Immunohistochemical analysis of paraffin-embedded Rat-heart tissue. 1, ERK 1/2 (phospho Tyr204) Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative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



Immunohistochemical analysis of paraffin-embedded Rat-spleen 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.

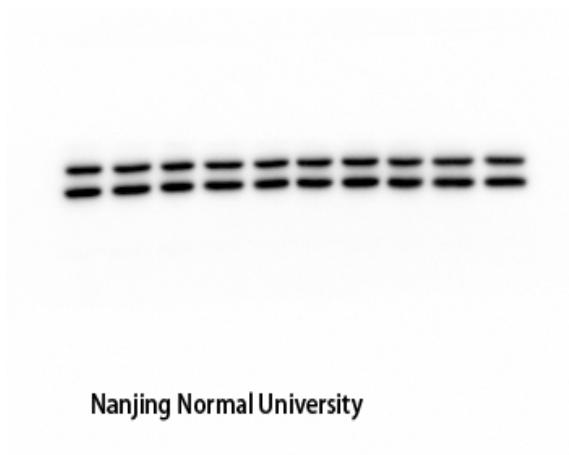


Western Blot analysis of various cells using Phospho-ERK 1/2 (Y204) Polyclonal Antibody diluted at 1:2000



Western Blot analysis of HeLa cells using Phospho-ERK 1/2 (Y204) Polyclonal Antibody diluted at 1:2000

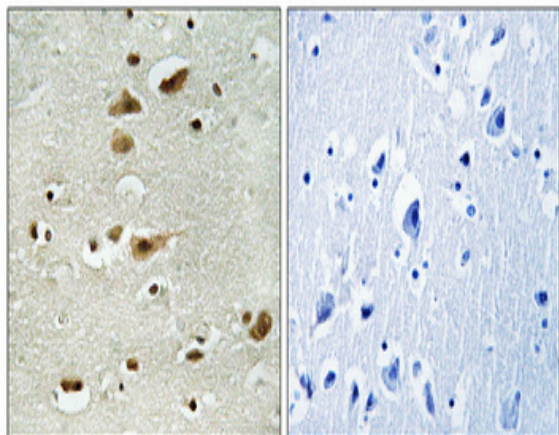
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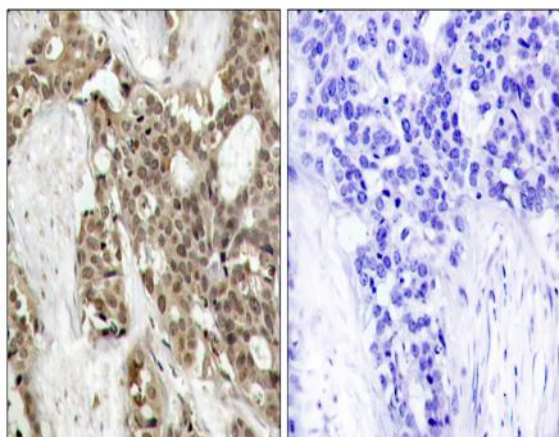
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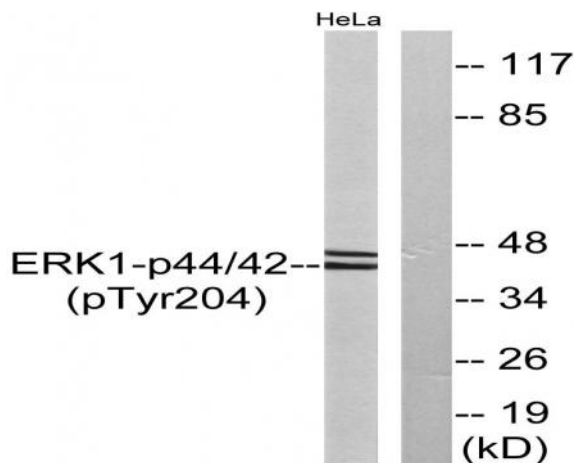
The First Affiliated Hospital of China Medical University  
Dr. HouDianDong



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtained from antibody was pre-absorbed by immunogen peptide.



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