



ERK 1/2 Polyclonal Antibody

Catalog No	YP-Ab-14739
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	IF;WB;IHC;ELISA
Gene Name	MAPK1/MAPK3
Immunogen	The antiserum was produced against synthesized peptide derived from human p44/42 MAPK. AA range:330-379
Specificity	ERK 1/2 Polyclonal Antibody detects endogenous levels of ERK 1/2 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	IF: 1:50-200 Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	ERK;ERK1;ERK2;EC:2.7.11.24;ERK-1;ERK 1/2;MAPK1/MAPK3;Mitogen-activated protein kinase 3;MAPK1;PRKM1;PRKM2;Mitogen-activated protein kinase 1;MAP kinase 1;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;PRKM3;MAP kinase 3;MAPK 3;ERT2;Extracellular signal-regulated kinase 1;Insulin-stimulated MAP2 kinase;MAP kinase isoform p44;p44-MAPK;Microtubule-associated protein 2 kinase;p
Observed Band	42,44kD
Calculated Molecular Weight	42,44kD
Cell Pathway	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). .
Tissue Specificity	Epithelium, Eye, Hepatoma, Human cervix, Lymph,
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

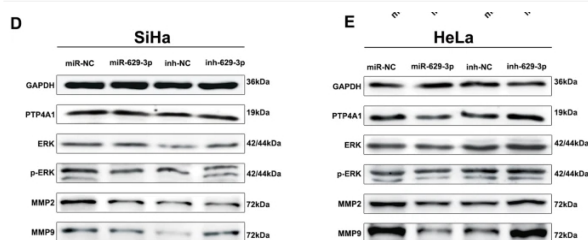


regulation:Activated by tyrosine phosphorylation in response to insulin and NGF.,
function:Involved in both the initiation and regulation of meiosis, mitosis, and
postmitotic functions in differentiated cells by phosphorylating a number of
transcription factors such as ELK-1. Phosphorylates EIF4EBP1; 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

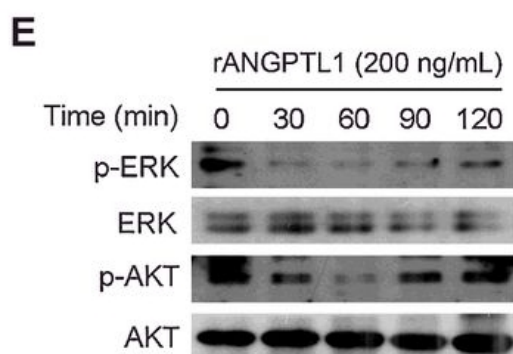
Background	The protein encoded by this gene is a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act in a signaling cascade that regulates various cellular processes such as proliferation, differentiation, and cell cycle progression in response 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],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Products Images



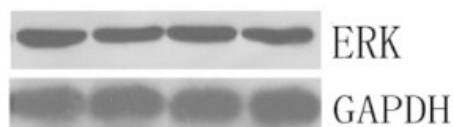
Li, X., Ma, N., Zhang, Y. et al. Circular RNA circNRIP1 promotes migration and invasion in cervical cancer by sponging miR-629-3p and regulating the PTP4A1/ERK1/2 pathway. *Cell Death Dis* 11, 399 (2020).



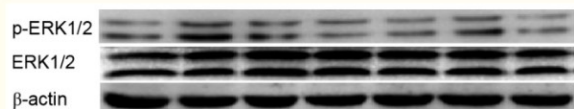
Yan, Qian, et al. "ANGPTL1 Interacts with integrin $\alpha\beta 1$ to suppress HCC angiogenesis and metastasis by inhibiting JAK2/STAT3 signaling." *Cancer research* (2017): canres-0579.



Li, Lin, et al. "Telekin suppresses human hepatocellular carcinoma cells in vitro by inducing G 2/M phase arrest via the p38 MAPK signaling pathway." *Acta Pharmacologica Sinica* 35.10 (2014): 1311.



Wang, Xinzhaoh, 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.



Xu, Yini, et al. "Inhibitory effects of oxymatrine on TGF - $\beta 1$ 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.