



# ERK 1 Polyclonal Antibody

|                           |   |
|---------------------------|---|
| <b>Catalog No</b>         | BYab-14738  |
| <b>Isotype</b>            | IgG   |
| <b>Reactivity</b>         | Human;Mouse;Rat   |
| <b>Applications</b>       | WB;IF;ELISA   |
| <b>Gene Name</b>          | MAPK3   |
| <b>Protein Name</b>       | Mitogen-activated protein kinase 3  |
| <b>Immunogen</b>          | The antiserum was produced against synthesized peptide derived from human p44 MAPK. AA range:161-210  |
| <b>Specificity</b>        | ERK 1 Polyclonal Antibody detects endogenous levels of ERK 1 protein.   |
| <b>Formulation</b>        | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.   |
| <b>Source</b>             | Polyclonal, Rabbit,IgG  |
| <b>Purification</b>       | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.   |
| <b>Dilution</b>           | Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/40000. Not yet tested in other applications.   |
| <b>Concentration</b>      | 1 mg/ml   |
| <b>Purity</b>             | ≥90%  |
| <b>Storage Stability</b>  | -20°C/1 year  |
| <b>Synonyms</b>           | MAPK3; ERK1; PRKM3; Mitogen-activated protein kinase 3; MAP kinase 3; MAPK 3; ERT2; Extracellular signal-regulated kinase 1; ERK-1; Insulin-stimulated MAP2 kinase; MAP kinase isoform p44; p44-MAPK; Microtubule-associated protein 2 kinase; p  |
| <b>Observed Band</b>      | 45kD  |
| <b>Cell Pathway</b>       | 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). .   |
| <b>Tissue Specificity</b> | Epithelium, Eye, Hepatoma, Human cervix, Lymph,   |
| <b>Function</b>           | 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, |

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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!

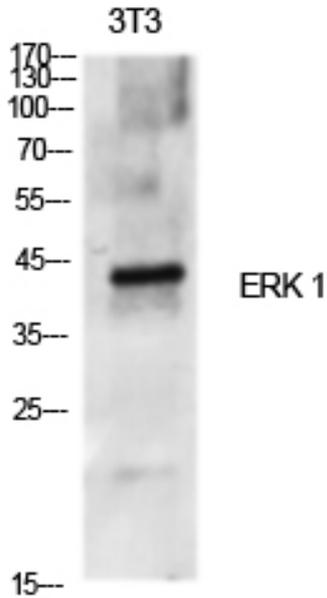
#### Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

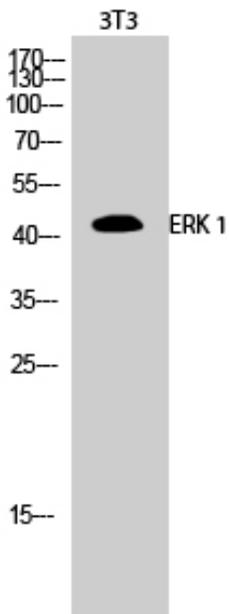
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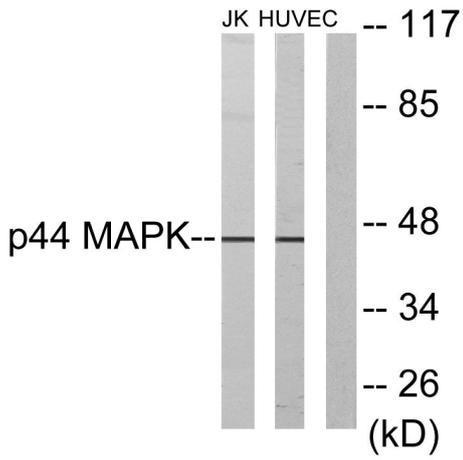
## Products Images



Western Blot analysis of various cells using ERK 1 Polyclonal Antibody diluted at 1:500



Western Blot analysis of 3T3 cells using ERK 1 Polyclonal Antibody diluted at 1:500



Western blot analysis of lysates from Jurkat and HUVEC cells, using p44 MAPK Antibody. The lane on the right is blocked with the synthesized peptide.