



# ERK1 mouse Monoclonal Antibody(5E9)

<b>Catalog No</b>	YP-Ab-14262
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Rat;Mouse
<b>Applications</b>	IF;WB;IHC
<b>Gene Name</b>	MAPK3
<b>Protein Name</b>	MAPK3
<b>Immunogen</b>	Recombinant Protein of ERK1 of MAPK3
<b>Specificity</b>	ERK1 protein detects endogenous levels of MAPK3
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Monoclonal, Mouse
<b>Purification</b>	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.
<b>Dilution</b>	IF: 1:50-200 IHC 1:100-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	MAPK3
<b>Observed Band</b>	44kD
<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, 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 kinases



## 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],

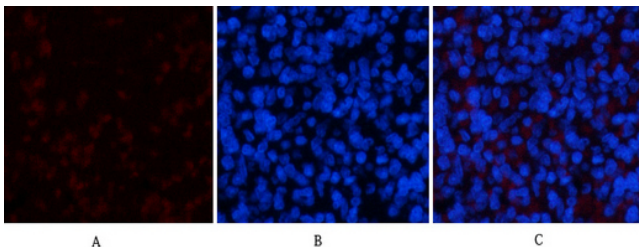
## matters needing attention

Avoid repeated freezing and thawing!

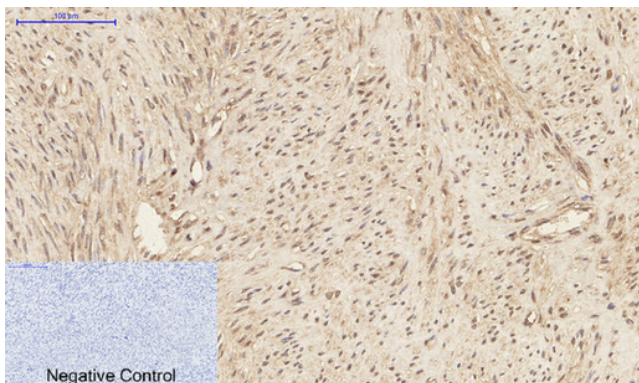
## Usage suggestions

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

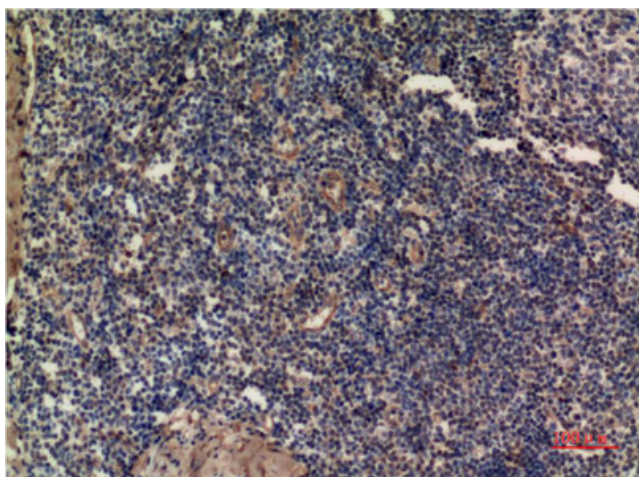
## Products Images



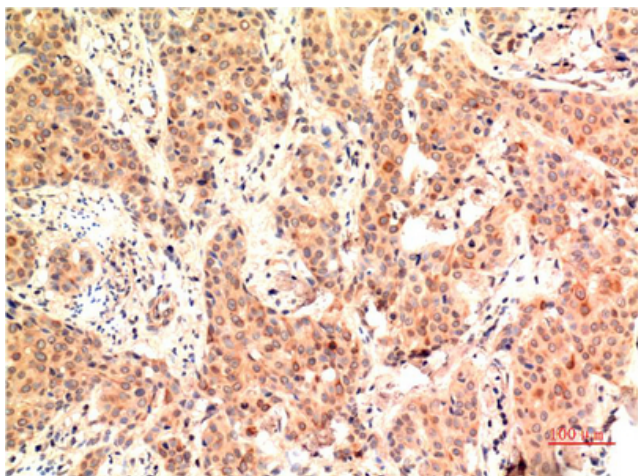
Immunofluorescence analysis of rat-spleen tissue. 1, ERK1 Mouse Monoclonal Antibody(5E9)(red) was diluted at 1:200(4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min). 3, Picture B: DAPI(blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1, ERK1 Mouse Monoclonal Antibody(5E9) 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 Tonsil Tissue using ERK1 Mouse mAb diluted at 1:200.



Immunohistochemical analysis of paraffin-embedded Human Breast Carcinoma Tissue using ERK1 Mouse mAb diluted at 1:200.