



ERK1 mouse Monoclonal Antibody(5E9)

Catalog No	YP-Ab-14262
Isotype	IgG
Reactivity	Human;Rat;Mouse
Applications	IF;WB;IHC
Gene Name	MAPK3
Immunogen	Recombinant Protein of ERK1 of MAPK3
Specificity	ERK1 protein detects endogenous levels of MAPK3
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen.
Dilution	IF: 1:50-200 IHC 1:100-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	ERK;ERK1;ERK2;4G8A11;EC:2.7.11.24;ERK 1;MAPK3
Observed Band	44kD
Calculated Molecular Weight	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],

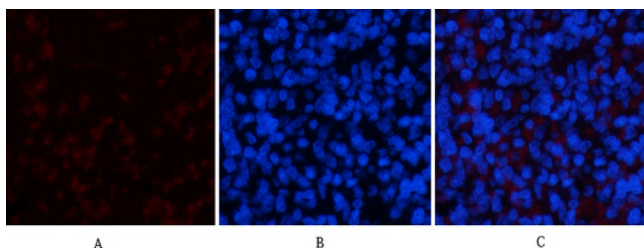
matters needing attention

Avoid repeated freezing and thawing!

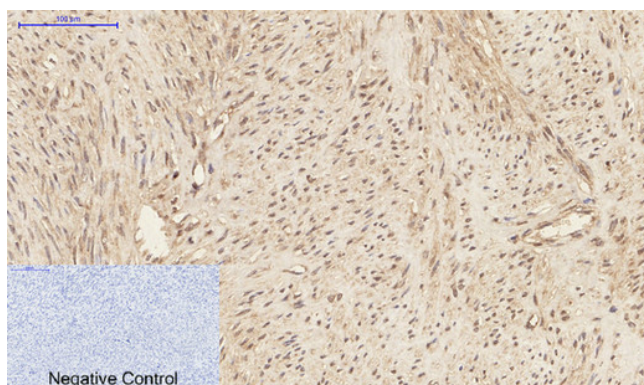
Usage suggestions

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

Products Images

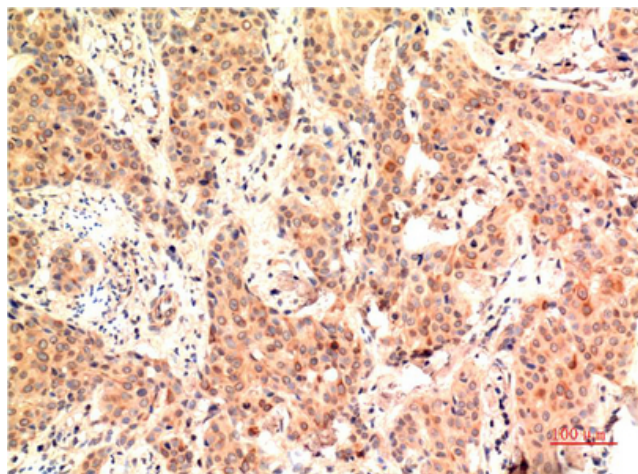


Immunofluorescence analysis of rat-spleen tissue. 1,ERK1 Mouse Monoclonal Antibody(5E9)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



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.