



ERK 5 Monoclonal Antibody

Catalog No	YP-mAb-14282
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	MAPK7,ERK5
Immunogen	Recombinant Protein of ERK 5
Specificity	The antibody detects endogenous ERK 5 protein.
Formulation	PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and 50% Glycerol.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	ERK 5;MAPK7;MAPK 7;Extracellular signal-regulated kinase 5;ERK-5;ERK5; Mitogen-activated protein kinase 7;BMK1;PRKM7;MAP kinase 7;Big MAP kinase 1;BMK-1
Observed Band	89-115kD
Calculated Molecular Weight	89-115kD
Cell Pathway	Cytoplasm. Nucleus. Nucleus, PML body. Translocates to the nucleus upon activation.
Tissue Specificity	Expressed in many adult tissues. Abundant in heart, placenta, lung, kidney and skeletal muscle. Not detectable in liver.
Function	catalytic activity:ATP + a protein = ADP + a phosphoprotein., cofactor:Magnesium.,domain:The second proline-rich region may interact with actin targeting the kinase to a specific location in the cell.,domain:The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.,enzyme regulation:Activated by tyrosine and threonine phosphorylation (By similarity). Activated in response to hyperosmolarity, hydrogen peroxide, and epidermal growth factor (EGF).,function:Plays a role in various cellular processes such as proliferation, differentiation and cell survival. The upstream activator of MAPK7 is the MAPK kinase MAP2K5. Upon activation,



it translocates to the nucleus and phosphorylates various downstream targets including MEF2C. EGF activates MAPK7 through a Ras-independent and MAP2K5-dependent pathway. May have a role in muscle cell differentiation

Background

The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is specifically activated by mitogen-activated protein kinase kinase 5 (MAP2K5/MEK5). It is involved in the downstream signaling processes of various receptor molecules including receptor type kinases, and G protein-coupled receptors. In response to extracellular signals, this kinase translocates to cell nucleus, where it regulates gene expression by phosphorylating, and activating different transcription factors. Four alternatively spliced transcript variants of this gene encoding two distinct isoforms have been reported. [provided by RefSeq, Jul 2008],

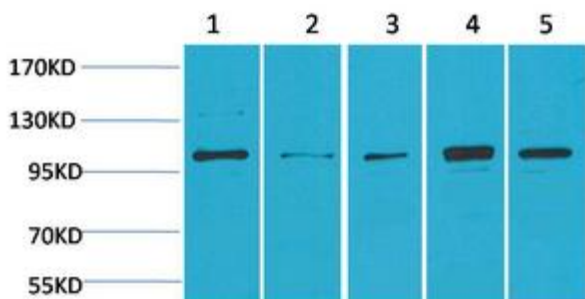
matters needing attention

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



Western Blot analysis of various cells using ERK 5 Monoclonal Antibody