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ERK5 Antibody
Rabbit mAb
Catalog # AP90868

Specification

ERK5 Antibody - Product Information

Application	**WB, FC, ICC, IP**
Primary Accession	Q13164
Reactivity	**Rat**
Clonality	**Monoclonal**

Other Names
Big MAP kinase 1; BMK 1; BMK 1 kinase; BMK-1; BMK1; BMK1 Kinase; ERK 4; ERK 5; ERK-5; ERK4; ERK5; MAP kinase 7; MAPK 7; Mitogen Activated Protein Kinase;

Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**88386 Da**

ERK5 Antibody - Additional Information

Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human ERK5**
Description	**Erk5 (Mitogen-activated protein kinase 7, Big mitogen-activated protein kinase 1) is a member of the MAPK superfamily implicated in the regulation numerous cellular processes including proliferation, differentiation, and survival. In neuronal cells, Erk5 is required for NGF-induced neurite outgrowth, neuronal homeostasis, and survival. Erk5 is thought to play a role in blood vessel integrity via maintenance of endothelial cell migration and barrier function.**
Storage Condition and Buffer	**Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

ERK5 Antibody - Protein Information

Name MAPK7

Synonyms BMK1, ERK5, PRKM7

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. As part of the MAPK/ERK signaling pathway, acts as a negative regulator of apoptosis in cardiomyocytes via interaction with STUB1/CHIP and promotion of STUB1-mediated ubiquitination and degradation of ICER-type isoforms of CREM (By similarity). May have a role in muscle cell differentiation. May be important for endothelial function and maintenance of blood vessel integrity. MAP2K5 and MAPK7 interact specifically with one another and not with MEK1/ERK1 or MEK2/ERK2 pathways. Phosphorylates SGK1 at Ser-78 and this is required for growth factor-induced cell cycle progression. Involved in the regulation of p53/TP53 by disrupting the PML-MDM2 interaction.

Cellular Location
Cytoplasm. Nucleus. Nucleus, PML body. Note=Translocates to the nucleus upon activation

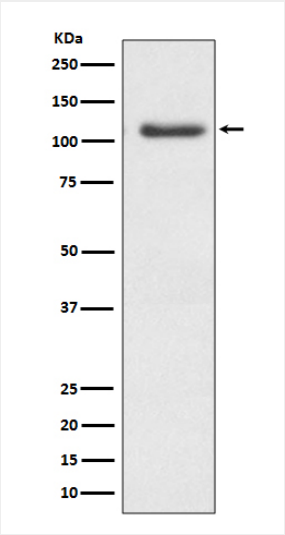
Tissue Location
Expressed in many adult tissues. Abundant in heart, placenta, lung, kidney and skeletal muscle. Not detectable in liver

ERK5 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ERK5 Antibody - Images



Western blot analysis of ERK5 expression in Hela cell lysate.