10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ERK5 (6D10) Mouse Monoclonal Antibody

ERK5 (6D10) Mouse Monoclonal Antibody

Catalog # AP93358

Specification

ERK5 (6D10) Mouse Monoclonal Antibody - Product Information

Application	WB, IHC
Primary Accession	Q13164
Reactivity	Rat, Human, Mouse
Host	Monoclonal, Mouse
Clonality	Monoclonal
Calculated MW	88386

ERK5 (6D10) Mouse Monoclonal Antibody - Additional Information

Gene ID 5598

Other Names
Mitogen-activated protein kinase 7, MAP kinase 7, MAPK 7, 2.7.11.24, Big MAP kinase 1, BMK-1, Extracellular signal-regulated kinase 5, ERK-5, MAPK7, BMK1, ERK5, PRKM7

Dilution
WB~~1:1000
IHC~~1:100~500

Storage Conditions
-20℃

ERK5 (6D10) Mouse Monoclonal 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

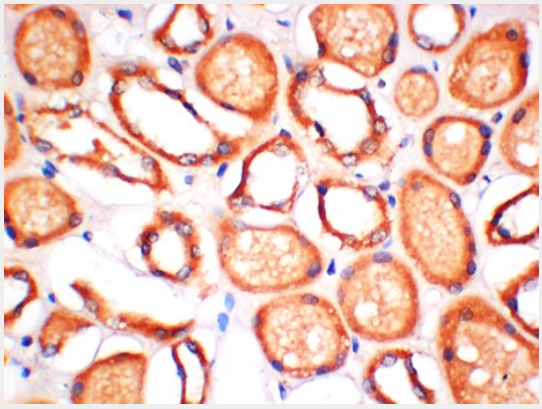
Tissue Location
Expressed in many adult tissues. Abundant in heart, placenta, lung, kidney and skeletal muscle. Not detectable in liver

ERK5 (6D10) Mouse Monoclonal Antibody - Protocols

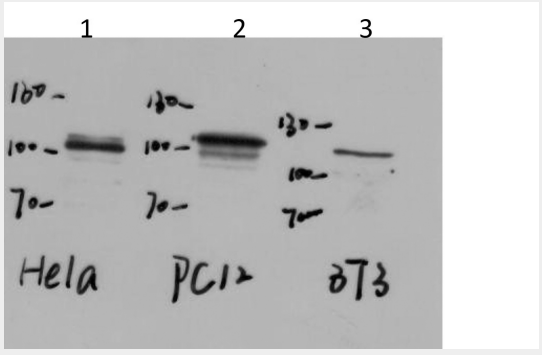
Provided below are standard protocols that you may find useful for product applications.

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

ERK5 (6D10) Mouse Monoclonal Antibody - Images



Immunohistochemical analysis of paraffin-embedded Human KidneyTissue using ERK5 Mouse Monoclonal antibody diluted at 1:200.



Western blot analysis of 1)Hela Cell, 2) PC12 Cell, 3)3T3 Cell Lysate using ERK5Mouse Monoclonal Antibody diluted at 1:2,000.

ERK5 (6D10) Mouse Monoclonal Antibody - Background

ERK5, Mitogen-activated protein kinase 7 also known as MAP kinase 7 is an enzyme that in humans

is encoded by the MAPK7 gene. MAPK7 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.