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ERK 5 Polyclonal Antibody

Catalog # AP63513

Product Information

Application	WB, IHC-P
Primary Accession	Q13164
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	88386

Additional Information

Gene ID	5598
Other Names	MAPK7; BMK1; ERK5; PRKM7; Mitogen-activated protein kinase 7; MAP kinase 7; MAPK 7; Big MAP kinase 1; BMK-1; Extracellular signal-regulated kinase 5; ERK-5
Dilution	WB~~WB: 1:1000-2000 IHC:1:200-500 IHC-P~~WB: 1:1000-2000 IHC:1:200-500
Format	PBS, pH 7.4, containing 0.09% (W/V) sodium azide as Preservative and 50% Glycerol.
Storage Conditions	-20℃

Protein Information

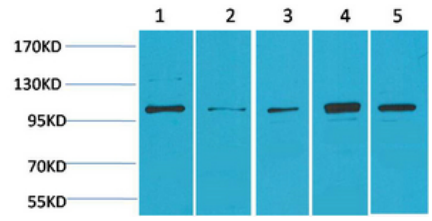
Name	MAPK7
Synonyms	BMK1, ERK5, PRKM7
Function	Plays a role in various cellular processes such as proliferation, differentiation and cell survival. The upstream activator of MAPK7 is the MAPK kinase MAP2K5. Upon activation, it translocates to the nucleus and phosphorylates various downstream targets 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

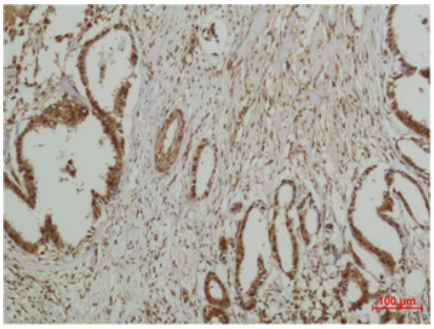
Background

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. 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.

Images



Western blot analysis of 1) Hela, 2) 293T, 3) Mouse Skeletal Muscle, 4) Rat Kidney, 5) Rat Skeletal Muscle using ERK 5 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human Breast caricnoma using ERK 5 Polyclonal Antibody.