

ERK 5 Polyclonal Antibody

Catalog # AP63513

### Specification

# ERK 5 Polyclonal Antibody - Product Information

Application Primary Accession Reactivity Host Clonality WB, IHC-P <u>013164</u> Human, Mouse, Rat Rabbit Polyclonal

### **ERK 5 Polyclonal Antibody - 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~~N/A

**Format** PBS, pH 7.4, containing 0.09% (W/V) sodium azide as Preservative and 50% Glycerol.

Storage Conditions -20°C

### ERK 5 Polyclonal 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

### **ERK 5 Polyclonal Antibody - Protocols**

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

## ERK 5 Polyclonal Antibody - Images





### ERK 5 Polyclonal Antibody - Background

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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.