

ARG41798 anti-MAPK7 / ERK5 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes MAPK7 / ERK5
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	MAPK7 / ERK5
Species	Human
Immunogen	Synthetic peptide of Human MAPK7 / ERK5.
Conjugation	Un-conjugated
Alternate Names	Extracellular signal-regulated kinase 5; EC 2.7.11.24; ERK4; ERK5; Big MAP kinase 1; BMK1; PRKM7; BMK-1; MAP kinase 7; MAPK 7; ERK-5; Mitogen-activated protein kinase 7

Application Instructions

Application table	Application	Dilution
	FACS	1:50
	ICC/IF	1:50 - 1:200
	IP	1:50
	WB	1:1000 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HeLa	
Observed Size	~ 110 kDa	

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw

cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

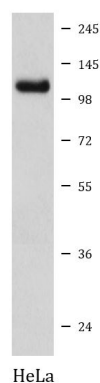
Note

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	MAPK7
Gene Full Name	mitogen-activated protein kinase 7
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]
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. 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. [UniProt]
Calculated Mw	88 kDa
PTM	Dually phosphorylated on Thr-219 and Tyr-221, which activates the enzyme (By similarity). Autophosphorylated in vitro on threonine and tyrosine residues when the C-terminal part of the kinase, which could have a regulatory role, is absent. [UniProt]
Cellular Localization	Cytoplasm. Nucleus. Nucleus, PML body. Note=Translocates to the nucleus upon activation. [UniProt]

Images



ARG41798 anti-MAPK7 / ERK5 antibody WB image

Western blot: HeLa cell lysate stained with ARG41798 anti-MAPK7 / ERK5 antibody.