

ARG24092 anti-MAPK7 / ERK5 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes MAPK7 / ERK5
Tested Reactivity	Hu, Ms
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	MAPK7 / ERK5
Species	Human
Immunogen	Recombinant protein 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
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	IHC-P: antigen retrieval: using heat-mediated antigen retrieval with sodium citrate buffer (pH 6.0).* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.42% Potassium phosphate (pH 7.3), 0.87% NaCl, 0.01% Sodium azide and 30% Glycerol.
Preservative	0.01% Sodium azide
Stabilizer	30% 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

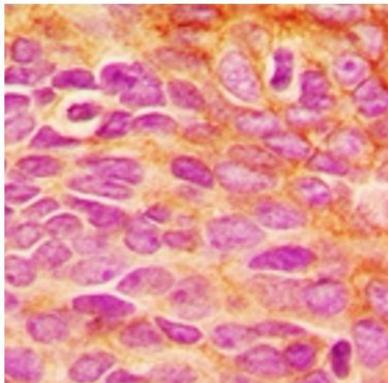
Gene Symbol	MAPK7
Gene Full Name	mitogen-activated protein kinase 7
Background	The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, 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]
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



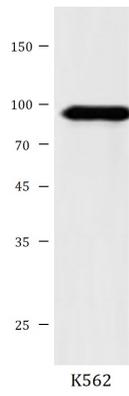
ARG24092 anti-MAPK7 / ERK5 antibody ICC/IF image

Immunofluorescence: K562 cells stained with ARG24092 anti-MAPK7 / ERK5 antibody.



ARG24092 anti-MAPK7 / ERK5 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast cancer tissue stained with ARG24092 anti-MAPK7 / ERK5 antibody.



ARG24092 anti-MAPK7 / ERK5 antibody WB image

Western blot: K562 cell lysates stained with ARG24092 anti-MAPK7 / ERK5 antibody.