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ERK4 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7503a

Product Information

Application	WB, IHC-P, E
Primary Accession	P31152
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB0917
Calculated MW	65922
Antigen Region	527-557

Additional Information

Gene ID	5596
Other Names	Mitogen-activated protein kinase 4, MAP kinase 4, MAPK 4, Extracellular signal-regulated kinase 4, ERK-4, MAP kinase isoform p63, p63-MAPK, MAPK4, ERK4, PRKM4
Target/Specificity	This ERK4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 527-557 amino acids from the C-terminal region of human ERK4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ERK4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MAPK4
Synonyms	ERK4, PRKM4
Function	Atypical MAPK protein. Phosphorylates microtubule-associated protein 2

	(MAP2) and MAPKAPK5. The precise role of the complex formed with MAPKAPK5 is still unclear, but the complex follows a complex set of phosphorylation events: upon interaction with atypical MAPKAPK5, ERK4/MAPK4 is phosphorylated at Ser-186 and then mediates phosphorylation and activation of MAPKAPK5, which in turn phosphorylates ERK4/MAPK4. May promote entry in the cell cycle (By similarity).
Cellular Location	Cytoplasm. Nucleus. Note=Translocates to the cytoplasm following interaction with MAPKAPK5
Tissue Location	High expression in heart and brain.

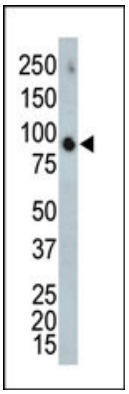
Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The CMGC group consists of 60 kinases including the cyclin-dependent kinase (CDK) and close relatives family, the MAP kinase (ERK) family, the glycogen synthase kinase 3 (GSK3) family, and the Cdc2-like kinase (CLK) family.

References

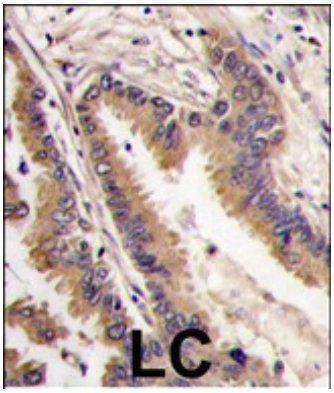
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Seger, R., et al., FASEB J. 9(9):726-735 (1995).
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Images



Western blot analysis of anti-ERK4 Pab (Cat. #AP7503a) in mouse brain tissue lysate. ERK4 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with ERK4 antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



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