

R MKP3 Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP8445a

Product Information

Application	WB, FC, E
Primary Accession	Q64346
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	42319

Additional Information

Gene ID	116663
Other Names	Dual specificity protein phosphatase 6, Mitogen-activated protein kinase phosphatase 3, MAP kinase phosphatase 3, MKP-3, Dusp6, Mkp3
Target/Specificity	This Rat MKP3 antibody is generated from rabbits immunized with a 6xHIS-tagged recombinant protein encoding aa 1~381 of rat MKP3.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, 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	R MKP3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Dusp6
Synonyms	Mkp3
Function	Dual specificity protein phosphatase, which mediates dephosphorylation and inactivation of MAP kinases (PubMed: 8626780). Has a specificity for the ERK family (PubMed: 8626780). Implicated in muscle and neuronal differentiation (PubMed: 8631996). Plays an important role in alleviating chronic postoperative pain. Necessary for the normal dephosphorylation of the long-lasting phosphorylated forms of spinal MAPK1/3 and MAP kinase p38

induced by peripheral surgery, which drives the resolution of acute postoperative allodynia (By similarity). Also important for dephosphorylation of MAPK1/3 in local wound tissue, which further contributes to resolution of acute pain (By similarity).

Cellular Location Cytoplasm.

Tissue Location Expressed in lung, heart, brain, and kidney, but not significantly in skeletal muscle or testis

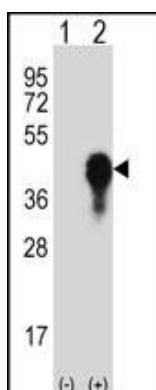
Background

Dual specificity protein tyrosine phosphatases (dsPTPs) are a subfamily of protein tyrosine phosphatases implicated in the regulation of mitogen-activated protein kinase (MAPK). MKP-1 (also known as CL100, 3CH134, Erp, and hVH-1) exemplifies a class of dual-specificity phosphatase able to reverse the activation of MAP kinases by dephosphorylating critical tyrosine and threonine residues. MKP-3 is 36% identical to MKP-1 and it blocks both the phosphorylation and enzymatic activation of ERK2 by mitogens. MKP-3 mRNA is expressed in lung, heart, brain, and kidney, but not significantly in skeletal muscle or testis

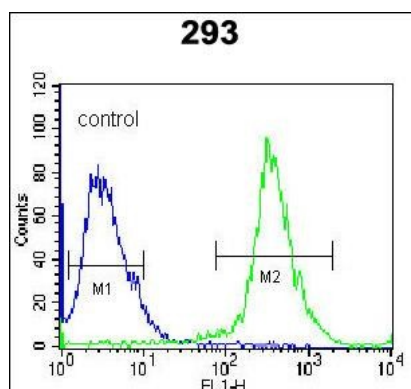
References

Muda,M., et al. J. Biol. Chem. 271 (8), 4319-4326 (1996)
Mourey,R.J., et al. J. Biol. Chem. 271 (7), 3795-3802 (1996)

Images



Western blot analysis of MKP3 (arrow) using rabbit polyclonal MKP3-His6 Antibody (Cat. #AP8445a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the MKP3 gene.



Rat MKP3 Antibody (Cat. #AP8445a) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- [Mitogen-activated protein kinase activation and regulation in the pressure-loaded fetal ovine heart.](#)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.