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MAP2K2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1362a

Product Information

Application	WB, FC, ICC, E
Primary Accession	P36507
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Clone Names	7F5
Isotype	IgG1
Calculated MW	44424
Description	MAP2K2, also called MEK2, it is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is known to play a critical role in mitogen growth factor signal transduction. It phosphorylates and thus activates MAPK1/ERK2 and MAPK2/ERK3. The activation of this kinase itself is dependent on the Ser/Thr phosphorylation by MAP kinase kinase kinases. Mutations in this gene cause cardiofaciocutaneous syndrome (CFC syndrome), a disease characterized by heart defects, mental retardation, and distinctive facial features similar to those found in Noonan syndrome. The inhibition or degradation of this kinase is also found to be involved in the pathogenesis of Yersinia and anthrax.
Immunogen	Purified recombinant fragment of human MAP2K2 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	5605
Other Names	Dual specificity mitogen-activated protein kinase kinase 2, MAP kinase kinase 2, MAPKK 2, 2.7.12.2, ERK activator kinase 2, MAPK/ERK kinase 2, MEK 2, MAP2K2, MEK2, MKK2, PRKMK2
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 ICC~~N/A E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MAP2K2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MAP2K2
Synonyms	MEK2, MKK2, PRKMK2
Function	Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in MAP kinases. Activates the ERK1 and ERK2 MAP kinases (By similarity). Activates BRAF in a KSR1 or KSR2-dependent manner; by binding to KSR1 or KSR2 releases the inhibitory intramolecular interaction between KSR1 or KSR2 protein kinase and N-terminal domains which promotes KSR1 or KSR2-BRAF dimerization and BRAF activation (PubMed:29433126).
Cellular Location	Cytoplasm. Membrane; Peripheral membrane protein. Note=Membrane localization is probably regulated by its interaction with KSR1.

References

1. Mol Cell Biol. 1993 Aug;13(8):4679-90. 2. Eur J Biochem. 1995 Nov 15;234(1):32-8. 3. Oncogene. 1998 Jul 9;17(1):57-65.

Images

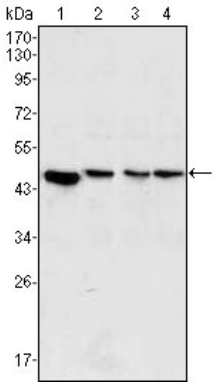


Figure 1: Western blot analysis using MAP2K2 mouse mAb against PC-12 (1), Jurkat (2), Hela (3) and NIH/3T3 (4) cell lysate.

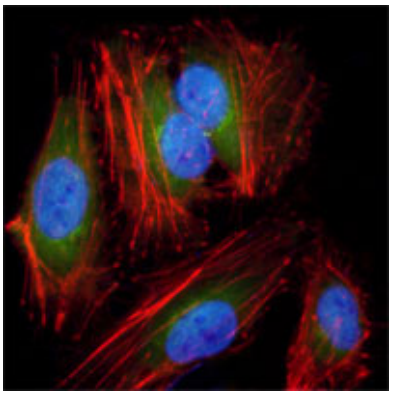
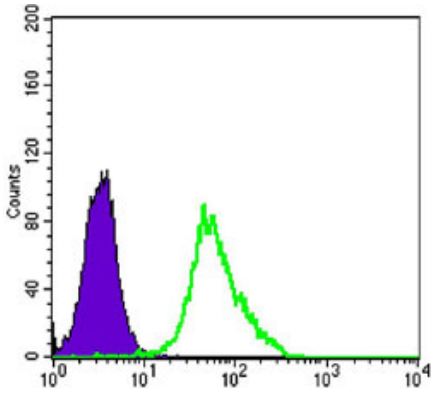


Figure 2: Immunofluorescence analysis of Hela cells using anti-MAP2K2 mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

Figure 3: Flow cytometric analysis of Hela cells using anti-MAP2K2 mAb (green) and negative control (purple).



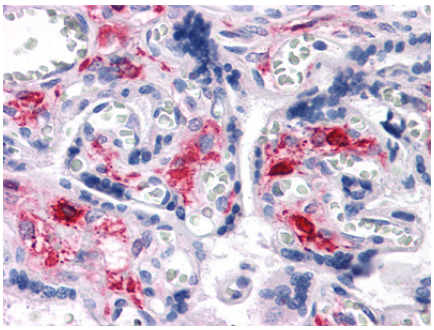


Figure 3: Immunohistochemical analysis of paraffin-embedded human Liver tissues using NKX3A mAb

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