

MAP4K2 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12341c

Specification

MAP4K2 Antibody (Center) - Product Information

Application	FC, WB,E
Primary Accession	O12851
Other Accession	O61161 , NP_004570.2
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	91556
Antigen Region	321-349

MAP4K2 Antibody (Center) - Additional Information

Gene ID 5871

Other Names

Mitogen-activated protein kinase kinase kinase kinase 2, B lymphocyte serine/threonine-protein kinase, Germinal center kinase, GC kinase, MAPK/ERK kinase kinase kinase 2, MEK kinase kinase 2, MEKKK 2, Rab8-interacting protein, MAP4K2, GCK, RAB8IP

Target/Specificity

This MAP4K2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 321-349 amino acids from the Central region of human MAP4K2.

Dilution

FC~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

MAP4K2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

MAP4K2 Antibody (Center) - Protein Information

Name MAP4K2 ([HGNC:6864](#))

Synonyms GCK, RAB8IP

Function Serine/threonine-protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Acts as a MAPK kinase kinase (MAP4K) and is an upstream activator of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway and to a lesser extent of the p38 MAPKs signaling pathway. Required for the efficient activation of JNKs by TRAF6- dependent stimuli, including pathogen-associated molecular patterns (PAMPs) such as polyinosine-polycytidine (poly(IC)), lipopolysaccharides (LPS), lipid A, peptidoglycan (PGN), or bacterial flagellin. To a lesser degree, IL-1 and engagement of CD40 also stimulate MAP4K2-mediated JNKs activation. The requirement for MAP4K2/GCK is most pronounced for LPS signaling, and extends to LPS stimulation of c-Jun phosphorylation and induction of IL-8. Enhances MAP3K1 oligomerization, which may relieve N-terminal mediated MAP3K1 autoinhibition and lead to activation following autophosphorylation. Also mediates the SAP/JNK signaling pathway and the p38 MAPKs signaling pathway through activation of the MAP3Ks MAP3K10/MLK2 and MAP3K11/MLK3. May play a role in the regulation of vesicle targeting or fusion. regulation of vesicle targeting or fusion. Activator of the Hippo signaling pathway which plays a pivotal role in organ size control and tumor suppression by restricting proliferation and promoting apoptosis. MAP4Ks act in parallel to and are partially redundant with STK3/MST2 and STK4/MST2 in the phosphorylation and activation of LATS1/2, and establish MAP4Ks as components of the expanded Hippo pathway (PubMed:[26437443](#)).

Cellular Location

Cytoplasm. Basolateral cell membrane; Peripheral membrane protein Golgi apparatus membrane; Peripheral membrane protein

Tissue Location

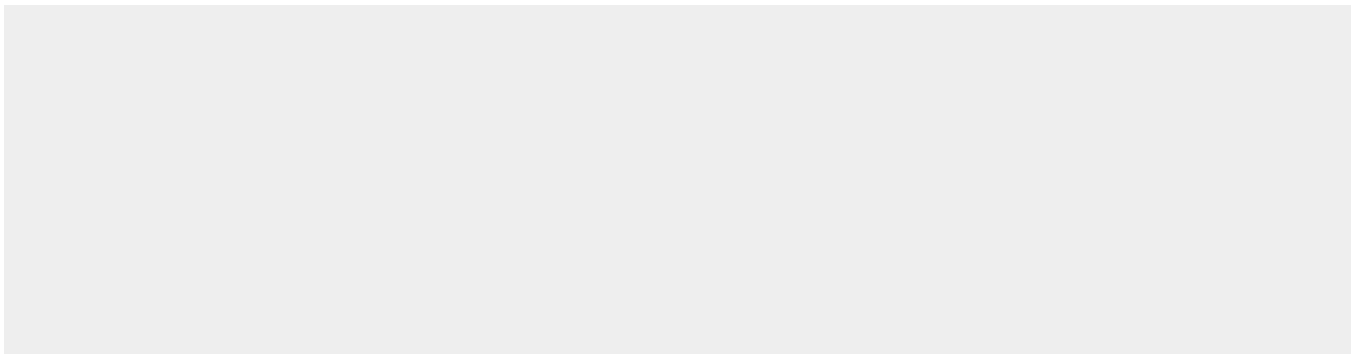
Highly expressed in germinal center but not mantle zone B-cells. Also expressed in lung, brain and placenta and at lower levels in other tissues examined.

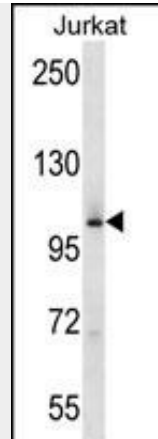
MAP4K2 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

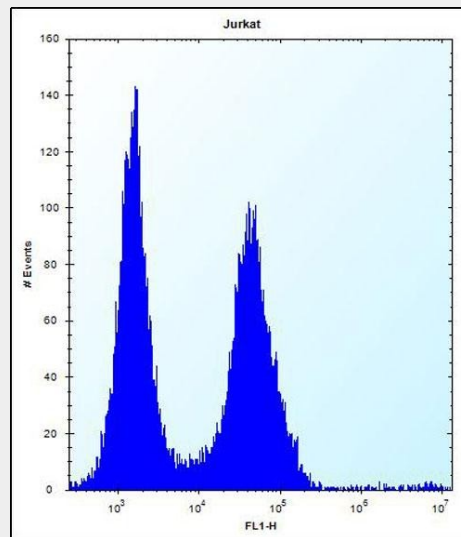
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

MAP4K2 Antibody (Center) - Images





MAP4K2 Antibody (Center) (Cat. #AP12341c) western blot analysis in Jurkat cell line lysates (35ug/lane). This demonstrates the MAP4K2 antibody detected the MAP4K2 protein (arrow).



MAP4K2 Antibody (Center) (Cat. #AP12341c) flow cytometric analysis of Jurkat cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.

MAP4K2 Antibody (Center) - Background

The protein encoded by this gene is a member of the serine/threonine protein kinase family. Although this kinase is found in many tissues, its expression in lymphoid follicles is restricted to the cells of germinal centre, where it may participate in B-cell differentiation. This kinase can be activated by TNF-alpha, and has been shown to specifically activate MAP kinases. This kinase is also found to interact with TNF receptor-associated factor 2 (TRAF2), which is involved in the activation of MAP3K1/MEKK1.

MAP4K2 Antibody (Center) - References

Bailey, S.D., et al. Diabetes Care (2010) In press :
 Fidalgo, M., et al. J. Cell. Sci. 123 (PT 8), 1274-1284 (2010) :
 Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)
 Wissing, J., et al. Mol. Cell Proteomics 6(3):537-547(2007)

Chadee, D.N., et al. Mol. Cell. Biol. 22(3):737-749(2002)