

Germinal Center Kinase (GCK/MAP4K2) Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP7065b

Specification

Germinal Center Kinase (GCK/MAP4K2) Antibody (Center) Blocking peptide - Product Information

Primary Accession
Other Accession

[O12851](#)
[M4K2_HUMAN](#)

Germinal Center Kinase (GCK/MAP4K2) Antibody (Center) Blocking peptide - 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

The synthetic peptide sequence used to generate the antibody [AP7065b](/product/products/AP7065b) was selected from the Center region of human MAP4K2 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Germinal Center Kinase (GCK/MAP4K2) Antibody (Center) Blocking peptide - Protein Information

Name MAP4K2

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. Mediates also 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.

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.

Germinal Center Kinase (GCK/MAP4K2) Antibody (Center) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

Germinal Center Kinase (GCK/MAP4K2) Antibody (Center) Blocking peptide - Images**Germinal Center Kinase (GCK/MAP4K2) Antibody (Center) Blocking peptide - 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.

Germinal Center Kinase (GCK/MAP4K2) Antibody (Center) Blocking peptide - References

Chadee, D.N., et al., Mol. Cell. Biol. 22(3):737-749 (2002).Katz, P., et al., J. Biol. Chem. 269(24):16802-16809 (1994).