

Germinal Center Kinase/MAP4K2 Protein, Human, Recombinant (His & GST)

General Information

Synonyms:	mitogen-activated protein kinase kinase kinase kinase 2;GCK;BL44;RAB8IP;MAP4K2
Protein Construction:	A DNA sequence encoding the human MAP4K2 (AAH47865.1) (Met 1-Tyr 812) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q12851-2
Molecular Weight:	119 kDa (predicted); 116 kDa (reducing conditions)

QC Testing

Biological Activity:	Kinase activity untested
Purity:	> 87 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Supplied as sterile 50 mM Tris, 100 mM NaCl, pH 8.0.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

Mitogen-activated protein kinase kinase kinase kinase 2, also known as B lymphocyte serine/threonine-protein kinase, Germinal center kinase, MAPK/ERK kinase kinase kinase 2, MEK kinase kinase 2, Rab8-interacting protein, and MAP4K2, is cytoplasm and peripheral membrane protein that belongs to the protein kinase superfamily, STE Ser/Thr protein kinase family and STE2 subfamily. MAP4K2 contains one CNH domain and one protein kinase domain. Although this kinase is found in many tissues, its expression in lymphoid follicles is restricted to the cells of the germinal center, where it may participate in B-cell differentiation. MAP4K2 can be activated by TNF-alpha and has been shown to specifically activate MAP kinases. It is also found to interact with TNF receptor-associated factor 2 (TRAF2), which is involved in the activation of MAP3K1 / MEKK1. MAP4K2 enhances MAP3K1 oligomerization, which may relieve amino-terminal mediated MAP3K1 autoinhibition and lead to activation

following autophosphorylation. It may also play a role in the regulation of vesicle targeting or fusion.

Reference

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Ren, M; et al., 1996, Proc. Natl. Acad. Sci. USA. 93 (10): 5151-5.
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Wissing J., et al., 2007, Mol. Cell. Proteomics 6:537-47.
Oppermann F.S., et al., 2009, Mol. Cell. Proteomics 8:1751-64.

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