

MAP3K8 Protein, Human, Recombinant (GST)

General Information

Synonyms:	TPL2;MEKK8;EST;ESTF;COT;Tpl-2;c-COT;AURA2;mitogen-activated protein kinase kinase 8
Protein Construction:	A DNA sequence encoding the human MAP3K8 isoform 1 (P41279-1) (Met 30-Arg 397) was fused with the GST tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	P41279-1
Molecular Weight:	68 kDa (predicted); 68 kDa (reducing conditions)

QC Testing

Biological Activity:	Kinase activity untested
Purity:	> 91 % 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, 0.5 mM PMSF, 0.5 mM GSH, 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 8, also known as Cancer Osaka thyroid oncogene, Proto-oncogene c-Cot, Serine/threonine-protein kinase cot, Tumor progression locus 2 and MAP3K8, is a cytoplasm protein that belongs to the protein kinase superfamily, STE Ser/Thr protein kinase family and MAP kinase kinase kinase subfamily. MAP3K8 is expressed in several normal tissues and human tumor-derived cell lines. Isoform 1 of MAP3K8 is activated specifically during the S and G2/M phases of the cell cycle. MAP3K8 is required for TLR4 activation of the MEK/ERK pathway. It can activate NF-kappa-B 1 by stimulating proteasome-mediated proteolysis of NF-kappa-B 1/p15. MAP3K8 plays a role in the cell cycle. The longer form has some transforming activity, although it is much weaker than the activated cot oncoprotein. MAP3K8 oncogene linked to human endometrial

carcinoma suggesting that it may be another molecule involved in human endometrial cancer. MAP3K8 may also be an important mediator of intracellular mechanotransduction in human bone marrow-derived mesenchymal stem cells (MSCs).

Reference

- Clark,A.M. et al., 2004, Genes Chromosomes Cancer. 41 (2):99-108.
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Aparecida Alves,C. et al., 2006, Eur J Gynaecol Oncol. 27 (6):589-93.
Mielke,L.A. et al., 2009, J Immunol. 183 (12):7984-93.
Glossop,J.R. et al., 2009, Gene Expr Patterns 9 (5):381-8.

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