

# Product datasheet

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# ARG58418 anti-MAP3K8 antibody

Package: 100 μl Store at: -20°C

## **Summary**

Product Description Rabbit Polyclonal antibody recognizes MAP3K8

Tested Reactivity Hu, Ms, Rat

Tested Application WB

Host Rabbit

**Clonality** Polyclonal

Isotype IgG

Target Name MAP3K8

Species Human

Immunogen Synthetic peptide within aa. 1-100 of Human MAP3K8 (NP\_005195.2).

Conjugation Un-conjugated

Alternate Names Serine/threonine-protein kinase cot; ESTF; EST; AURA2; COT; Mitogen-activated protein kinase kinase

kinase 8; Tpl-2; EC 2.7.11.25; Cancer Osaka thyroid oncogene; TPL2; TPL-2; Proto-oncogene c-Cot; c-

COT; MEKK8; Tumor progression locus 2

# **Application Instructions**

Application table	Application	Dilution
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	U-251MG	
Observed Size	58 kDa	

### **Properties**

Form Liquid

Purification Affinity purified.

Buffer PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.

Preservative 0.02% Sodium azide

Stabilizer 50% Glycerol

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

#### Bioinformation

Gene Symbol

MAP3K8

Gene Full Name

mitogen-activated protein kinase kinase kinase 8

Background

This gene is an oncogene that encodes a member of the serine/threonine protein kinase family. The encoded protein localizes to the cytoplasm and can activate both the MAP kinase and JNK kinase pathways. This protein was shown to activate IkappaB kinases, and thus induce the nuclear production of NF-kappaB. This protein was also found to promote the production of TNF-alpha and IL-2 during T lymphocyte activation. This gene may also utilize a downstream in-frame translation start codon, and thus produce an isoform containing a shorter N-terminus. The shorter isoform has been shown to display weaker transforming activity. Alternate splicing results in multiple transcript variants that encode the same protein. [provided by RefSeq, Sep 2011]

Function

Required for lipopolysaccharide (LPS)-induced, TLR4-mediated activation of the MAPK/ERK pathway in macrophages, thus being critical for production of the proinflammatory cytokine TNF-alpha (TNF) during immune responses. Involved in the regulation of T-helper cell differentiation and IFNG expression in T-cells. Involved in mediating host resistance to bacterial infection through negative regulation of type I interferon (IFN) production. In vitro, activates MAPK/ERK pathway in response to IL1 in an IRAK1-independent manner, leading to up-regulation of IL8 and CCL4. Transduces CD40 and TNFRSF1A signals that activate ERK in B-cells and macrophages, and thus may play a role in the regulation of immunoglobulin production. May also play a role in the transduction of TNF signals that activate JNK and NF-kappa-B in some cell types. In adipocytes, activates MAPK/ERK pathway in an IKBKB-dependent manner in response to IL1B and TNF, but not insulin, leading to induction of lipolysis. Plays a role in the cell cycle. Isoform 1 shows some transforming activity, although it is much weaker than that of the activated oncogenic variant. [UniProt]

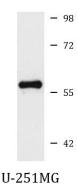
Calculated Mw

53 kDa

PTM

Autophosphorylated. Isoform 1 undergoes phosphorylation mainly on Ser residues, and isoform 2 on both Ser and Thr residues. Thr-290 is autophosphorylated (PubMed:19754427) and/or transphosphorylated (PubMed:15466476); the phosphorylation is necessary but not sufficient for full kinase activity in vitro and for the dissociation of isoform 1 from NFKB1, leading to its degradation. Ser-400 is autophosphorylated (PubMed:19754427) and/or transphosphorylated by IKBKB (PubMed:22988300); the phosphorylation is required for LPS-stimulated activation of the MAPK/ERK pathway in macrophages. [UniProt]

#### **Images**



#### ARG58418 anti-MAP3K8 antibody WB image

Western blot:  $25 \,\mu g$  of U-251MG cell lysate stained with ARG58418 anti-MAP3K8 antibody at 1:3000 dilution.