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# Phospho-MAP3K8(T290) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3413a

## Product Information

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| **Application** | WB, DB, E |
| **Primary Accession** | P41279 |
| **Other Accession** | NP_005195 |
| **Reactivity** | Human |
| **Predicted** | Mouse, Rat, Bovine, Canine, Rabbit, Chicken |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB11315 |
| **Calculated MW** | 52925 |

## Additional Information

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| **Gene ID** | 1326 |
| **Other Names** | Mitogen-activated protein kinase kinase kinase 8, Cancer Osaka thyroid oncogene, Proto-oncogene c-Cot, Serine/threonine-protein kinase cot, Tumor progression locus 2, TPL-2, MAP3K8, COT, ESTF |
| **Target/Specificity** | This MAP3K8 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding T290 of human MAP3K8. |
| **Dilution** | WB~~1:1000 DB~~1:500 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** | Phospho-MAP3K8(T290) Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | MAP3K8 |
| **Synonyms** | COT, ESTF |

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| **Function** | Required for lipopolysaccharide (LPS)-induced, TLR4-mediated activation of the MAPK/ERK pathway in macrophages, thus being critical for production of the pro-inflammatory cytokine TNF (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. |
| **Cellular Location** | Cytoplasm |
| **Tissue Location** | Expressed in several normal tissues and human tumor-derived cell lines |

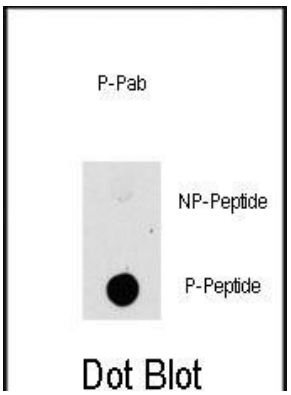
## Background

Mitogen-activated protein kinase (MAPK) signaling cascades include MAPK or extracellular signal-regulated kinase (ERK), MAPK kinase (MKK or MEK), and MAPK kinase kinase (MAPKKK or MEKK). MAPKK kinase/MEKK phosphorylates and activates its downstream protein kinase, MAPK kinase/MEK, which in turn activates MAPK. The kinases of these signaling cascades are highly conserved, and homologs exist in yeast, Drosophila, and mammalian cells. MEKK8 is able to activate NF-kappa-B 1 by stimulating proteasome-mediated proteolysis of NF-kappa-B 1/p105. The protein appears to play an important role in the cell cycle. This cytoplasmic protein is expressed in several normal tissues and human tumor-derived cell lines. The 58 kDa form is activated specifically during the S and G2/M phases of the cell cycle. The longer form undergoes phosphorylation on Ser residues mainly, and the shorter form on both Ser and Thr residues.

## References


Sanchez-Gongora, E., et al., J. Biol. Chem. 275(40):31379-31386 (2000).
Aoki, M., et al., J. Biol. Chem. 268(30):22723-22732 (1993).
Chan, A.M., et al., Oncogene 8(5):1329-1333 (1993).
Miyoshi, J., et al., Mol. Cell. Biol. 11(8):4088-4096 (1991).
Aoki, M., et al., Oncogene 6(9):1515-1519 (1991).


## Images




Dot blot analysis of anti-PAK1-pT423 Phospho-specific Pab (Cat.#AP3414a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.