

## Product datasheet for **TA322542**

### MAP3K4 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC
Recommended Dilution:	IHC: 25-100 Positive control: Human ovarian cancer Predicted cell location: Cytoplasm
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide corresponding to a region derived from 1282-1286 amino acids of human mitogen-activated protein kinase kinase 4
Formulation:	PBS pH7.3, 0.05% NaN <sub>3</sub> , 50% glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	mitogen-activated protein kinase kinase kinase 4
Database Link:	<a href="#">NP_005913</a> <a href="#">Entrez Gene 4216 Human</a> <a href="#">Q9Y6R4</a>



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**Background:**

The central core of each mitogen-activated protein kinase (MAPK) pathway is a conserved cascade of 3 protein kinases: an activated MAPK kinase kinase (MAPKKK) phosphorylates and activates a specific MAPK kinase (MAPKK); which then activates a specific MAPK. While the ERK MAPKs are activated by mitogenic stimulation; the CSBP2 and JNK MAPKs are activated by environmental stresses such as osmotic shock; UV irradiation; wound stress; and inflammatory factors. This gene encodes a MAPKKK; the MEKK4 protein; also called MTK1. This protein contains a protein kinase catalytic domain at the C terminus. The N-terminal nonkinase domain may contain a regulatory domain. Expression of MEKK4 in mammalian cells activated the CSBP2 and JNK MAPK pathways; but not the ERK pathway. In vitro kinase studies indicated that recombinant MEKK4 can specifically phosphorylate and activate PRKMK6 and SERK1; MAPKKs that activate CSBP2 and JNK; respectively but cannot phosphorylate PRKMK1; an MAPKK that activates ERKs. MEKK4 is a major mediator of environmental stresses that activate the CSBP2 MAPK pathway; and a minor mediator of the JNK pathway. Two alternatively spliced transcripts encoding distinct isoforms have been described.

**Synonyms:**

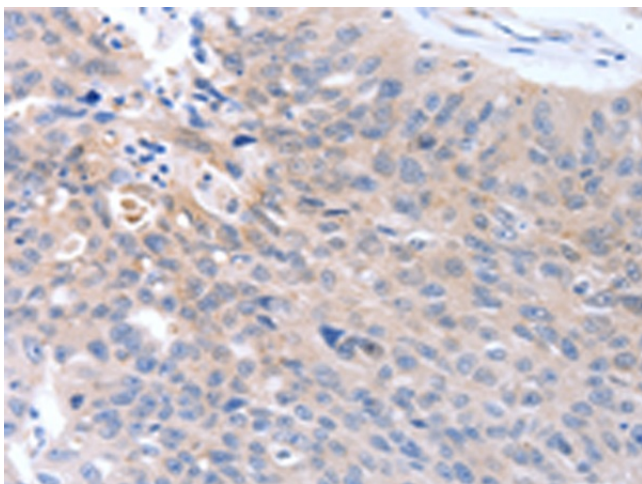
MAPKKK4; MEKK 4; MEKK4; MTK1; PRO0412

**Protein Families:**

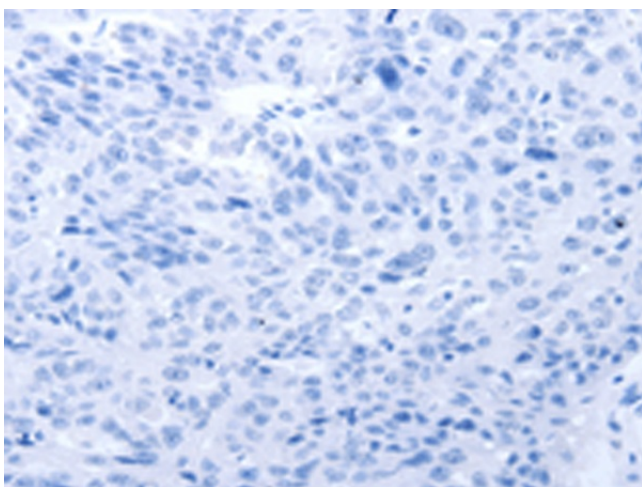
Druggable Genome, Protein Kinase

**Protein Pathways:**

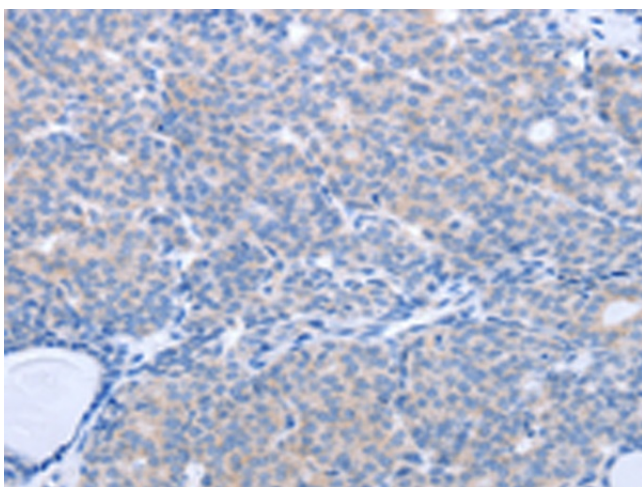
GnRH signaling pathway, MAPK signaling pathway

**Product images:**

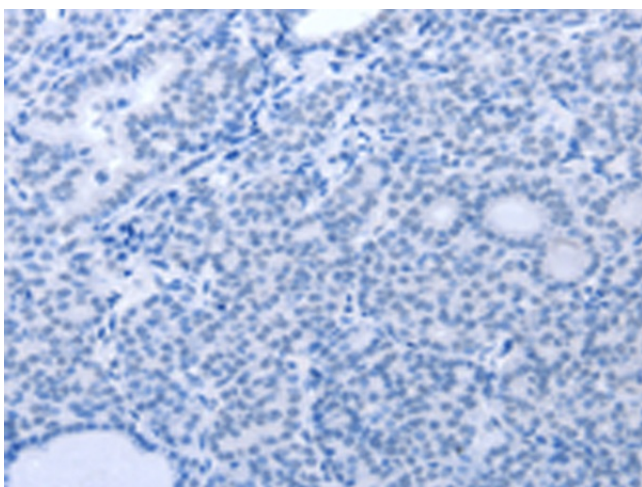
Immunohistochemistry of paraffin-embedded Human ovarian cancer tissue using TA322542 (MAP3K4 Antibody) at dilution 1/40 (Original magnification:  $\times 200$ )



Immunohistochemistry of paraffin-embedded Human ovarian cancer tissue using TA322542 (MAP3K4 Antibody) at dilution 1/40, treated with synthetic peptide. (Original magnification: x200)



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using TA322542 (MAP3K4 Antibody) at dilution 1/40 (Original magnification: x200)



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using TA322542 (MAP3K4 Antibody) at dilution 1/40, treated with synthetic peptide. (Original magnification: x200)