

# **Product datasheet for TA500403S**

#### OriGene Technologies, Inc.

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# MEK4 (MAP2K4) Mouse Monoclonal Antibody [Clone ID: OTI8A8]

### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: OTI8A8

**Applications:** FC, IF, IHC, IP, WB

**Recommended Dilution:** WB 1:500~1000, IHC 1:150, IF 1:50~100, FLOW 1:100, IP 2ug/500ul

Reactivity: Human, Dog, Mouse, Rat

Host: Mouse Isotype: IgG2b

Clonality: Monoclonal

Immunogen: Full-length protein expressed in 293T cell transfected with human MAP2K4 expression vector

**Formulation:** PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.

**Concentration:** 2.36 mg/ml

**Purification:** Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography

(protein A/G)

**Conjugation:** Unconjugated

**Storage:** Store at -20°C as received.

**Stability:** Stable for 12 months from date of receipt.

Predicted Protein Size: 44.3 kDa

**Gene Name:** mitogen-activated protein kinase kinase 4

Database Link: NP 003001

Entrez Gene 26398 MouseEntrez Gene 287398 RatEntrez Gene 489508 DogEntrez Gene 6416

<u>Human</u> P45985

**Background:** This gene encodes a dual specificity protein kinase that belongs to the Ser/Thr protein kinase

family. This kinase is a direct activator of MAP kinases in response to various environmental stresses or mitogenic stimuli. It has been shown to activate MAPK8/JNK1, MAPK9/JNK2, and MAPK14/p38, but not MAPK1/ERK2 or MAPK3/ERK3. This kinase is phosphorylated, and thus activated by MAP3K1/MEKK. The knockout studies in mice suggested the roles of this kinase in mediating survival signal in T cell development, as well as in the organogenesis of liver

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Synonyms: JNKK; JNKK1; MAPKK4; MEK4; MKK4; PRKMK4; SAPKK-1; SAPKK1; SEK1; SERK1; SKK1

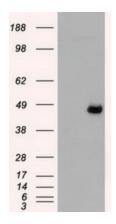
**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Fc epsilon RI

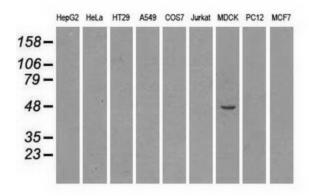
signaling pathway, GnRH signaling pathway, MAPK signaling pathway, Toll-like receptor

signaling pathway

# **Product images:**

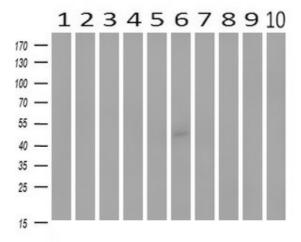


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MAP2K4 (Cat# [RC206051], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MAP2K4(Cat# [TA500403]). Positive lysates [LY401058] (100ug) and [LC401058] (20ug) can be purchased separately from OriGene.

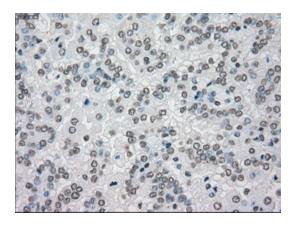


Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-MAP2K4 monoclonal antibody.

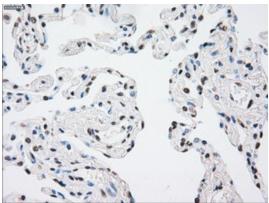




Western blot analysis of extracts (10ug) from 10 Human tissue by using anti-MAP2K4 monoclonal antibody at 1:500 (1: Testis; 2: Omentum; 3: Uterus; 4: Breast; 5: Brain; 6: Liver; 7: Ovary; 8: Thyroid gland; 9: colon;10: spleen).

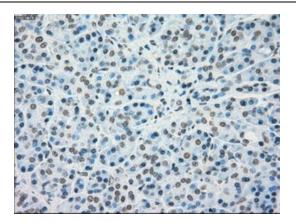


Immunohistochemical staining of paraffinembedded Carcinoma of Human kidney tissue using anti-MAP2K4 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500403])

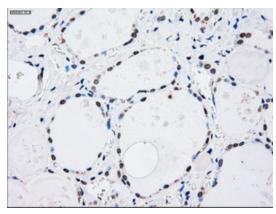


Immunohistochemical staining of paraffinembedded Human lung tissue within the normal limits using anti-MAP2K4 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500403])

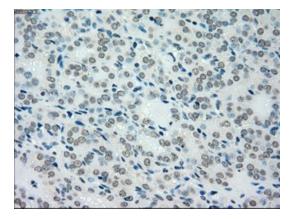




Immunohistochemical staining of paraffinembedded Human pancreas tissue within the normal limits using anti-MAP2K4 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500403])

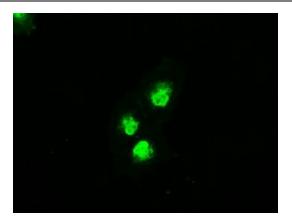


Immunohistochemical staining of paraffinembedded Human thyroid tissue within the normal limits using anti-MAP2K4 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500403])

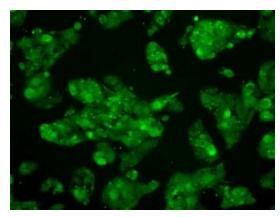


Immunohistochemical staining of paraffinembedded Carcinoma of Human thyroid tissue using anti-MAP2K4 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA500403])

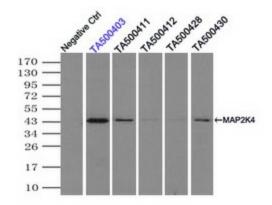




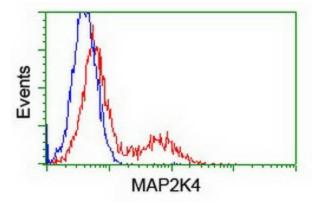
Anti-MAP2K4 mouse monoclonal antibody ([TA500403]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY MAP2K4 ([RC206051]).



Immunofluorescent staining of HepG2 cells using anti-MAP2K4 mouse monoclonal antibody ([TA500403]).



Immunoprecipitation (IP) of MAP2K4 by using TrueMab monoclonal anti-MAP2K4 antibodies (Negative control: IP without adding anti-MAP2K4 antibody.). For each experiment, 500ul of DDK tagged MAP2K4 overexpression lysates (at 1:5 dilution with HEK293T lysate), 2ug of anti-MAP2K4 antibody and 20ul (0.1mg) of goat anti-mouse conjugated magnetic beads were mixed and incubated overnight. After extensive wash to remove any non-specific binding, the immuno-precipitated products were analyzed with rabbit anti-DDK polyclonal antibody.



HEK293T cells transfected with either [RC206051] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-MAP2K4 antibody ([TA500403]), and then analyzed by flow cytometry.