

# **Product datasheet for CF500428**

#### OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

### MEK4 (MAP2K4) Mouse Monoclonal Antibody [Clone ID: OTI1D6]

#### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: OTI1D6

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

Recommended Dilution: WB 1:2000, IHC 1:150, IF 1:100, IP 2ug/500ul

Reactivity: Human, Mouse, Rat

Host: Mouse Isotype: IgG2a

Clonality: Monoclonal

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

Formulation: Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)

**Reconstitution Method:** For reconstitution, we recommend adding 100uL distilled water to a final antibody

concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)

**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 6416 Human

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.

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

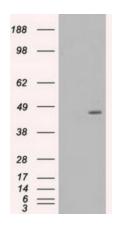
**Protein Families:** Druggable Genome, Protein Kinase

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

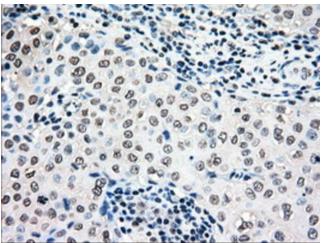
signaling pathway, GnRH signaling pathway, MAPK signaling pathway, Toll-like receptor

signaling pathway

## **Product images:**

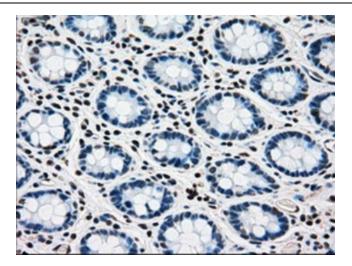


HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY MAP2K4 ([RC206051], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MAP2K4. Positive lysates [LY401058] (100ug) and [LC401058]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

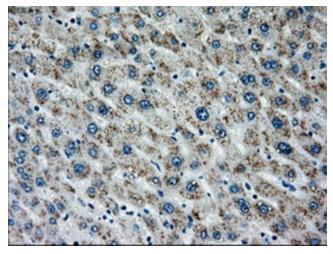


Immunohistochemical staining of paraffinembedded Adenocarcinoma of Human breast tissue using anti-MAP2K4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

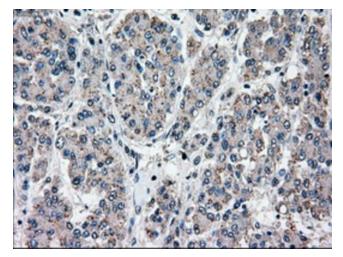




Immunohistochemical staining of paraffinembedded Human colon tissue within the normal limits using anti-MAP2K4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min

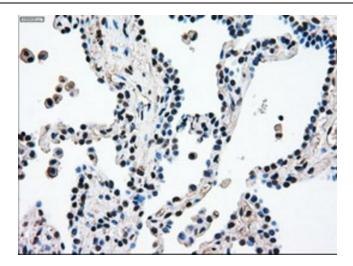


Immunohistochemical staining of paraffinembedded Human liver tissue within the normal limits using anti-MAP2K4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

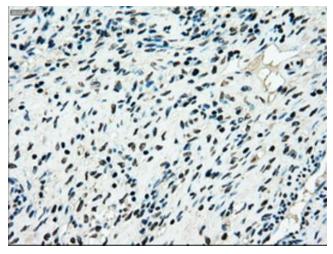


Immunohistochemical staining of paraffinembedded Carcinoma of Human liver tissue using anti-MAP2K4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

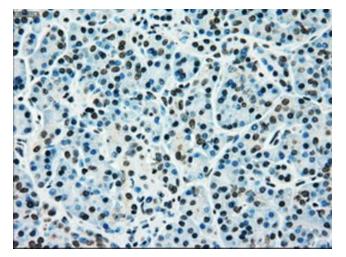




Immunohistochemical staining of paraffinembedded Carcinoma of Human lung tissue using anti-MAP2K4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

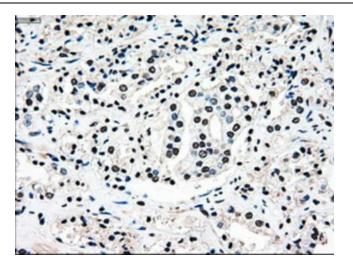


Immunohistochemical staining of paraffinembedded Human Ovary tissue within the normal limits using anti-MAP2K4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

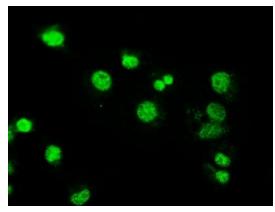


Immunohistochemical staining of paraffinembedded Human pancreas tissue within the normal limits using anti-MAP2K4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.

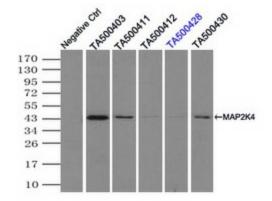




Immunohistochemical staining of paraffinembedded Carcinoma of Human prostate tissue using anti-MAP2K4 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Anti-MAP2K4 mouse monoclonal antibody ([TA500428]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY MAP2K4 ([RC206051]).



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.