

# **Product datasheet for CF506006**

#### OriGene Technologies, Inc.

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## MEK1 (MAP2K1) Mouse Monoclonal Antibody [Clone ID: OTI4E1]

#### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: OTI4E1

**Applications:** IF, IHC, WB

**Recommended Dilution:** WB 1:200~2000, IHC 1:150, IF 1:100

Reactivity: Human, Dog, Rat, Monkey, Mouse

Host: Mouse Isotype: IgG1

Clonality: Monoclonal

Immunogen: Full length human recombinant protein of human MAP2K1(NP\_002746) produced in

HEK293T cell.

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: 43.3 kDa

**Gene Name:** mitogen-activated protein kinase kinase 1

Database Link: NP 002746

Entrez Gene 26395 MouseEntrez Gene 170851 RatEntrez Gene 478347 DogEntrez Gene

710415 MonkeyEntrez Gene 5604 Human

Q02750





Background:

The protein encoded by this gene is a member of the dual specificity protein kinase family, which acts as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This protein kinase lies upstream of MAP kinases and stimulates the enzymatic activity of MAP kinases upon wide variety of extra- and intracellular signals. As an essential component of MAP kinase signal transduction pathway, this kinase is involved in many cellular processes such as proliferation, differentiation, transcription regulation and development. [provided by RefSeq, Jul

**Synonyms:** CFC3; MAPKK1; MEK1; MKK1; PRKMK1

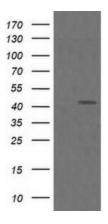
**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Acute myeloid leukemia, B cell receptor signaling pathway, Bladder cancer, Chemokine

signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Dorso-ventral axis formation, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis, Focal adhesion, Gap junction, Glioma, GnRH signaling pathway, Insulin signaling pathway, Long-term depression, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Melanoma, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Oocyte meiosis, Pancreatic cancer, Pathways in cancer, Prion diseases, Progesterone-mediated oocyte maturation, Prostate cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway, Thyroid cancer, Toll-like receptor signaling pathway, Vascular smooth muscle contraction,

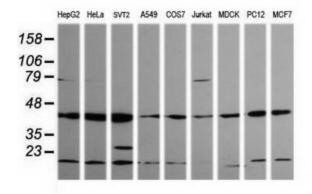
VEGF signaling pathway

## **Product images:**

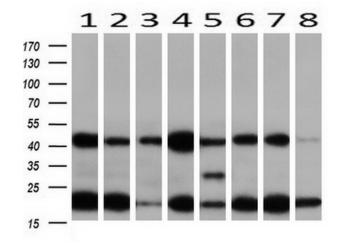


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MAP2K1 (Cat# [RC218460], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MAP2K1 (Cat# [TA506006]). Positive lysates [LY400974] (100ug) and [LC400974] (20ug) can be purchased separately from OriGene.





Western blot analysis of extracts (35ug) from 9 different cell lines by usin g anti-MAP2K1 monoclonal antibody (HepG2: human; HeLa: human; SVT2: mouse; A549: human; COS7: monkey; Jurkat: human; MDCK: canine; PC12: rat; MCF7: human).



Western blot analysis of extracts (10ug) from 8 Human tissue by using anti-MAP2K1 monoclonal antibody at 1:200 (1: Testis; 2: Uterus; 3: Breast; 4: Brain; 5: Liver; 6: Ovary; 7: Thyroid gland; 8: Colon).

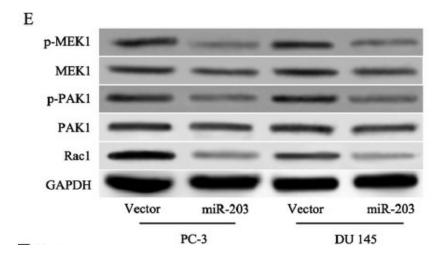
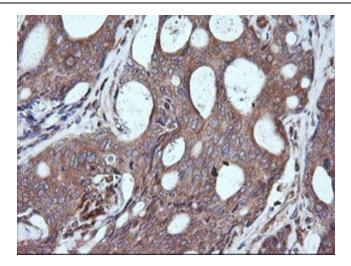
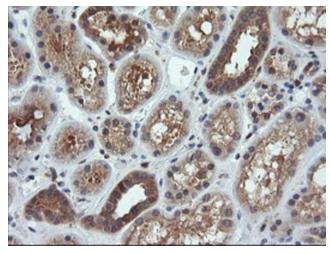


Figure from citation: Western blot analysis of MAP2K1 (also known as MEK1) protein level by using anti-MAP2K1 antibody in PC-3 and DU145 cells after infection with miR-203. <u>View Citation</u>

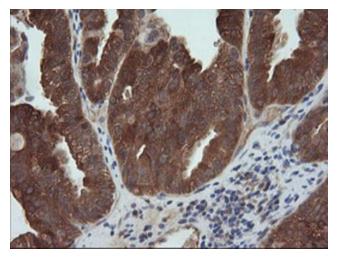




Immunohistochemical staining of paraffinembedded Adenocarcinoma of Human breast tissue using anti-MAP2K1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA506006])

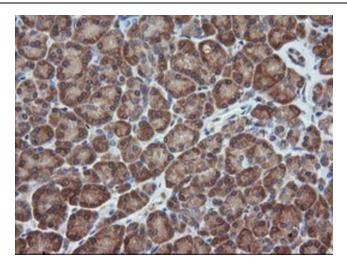


Immunohistochemical staining of paraffinembedded Human Kidney tissue within the normal limits using anti-MAP2K1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA506006])

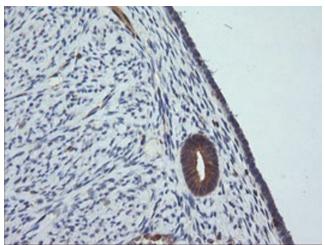


Immunohistochemical staining of paraffinembedded Adenocarcinoma of Human ovary tissue using anti-MAP2K1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA506006])

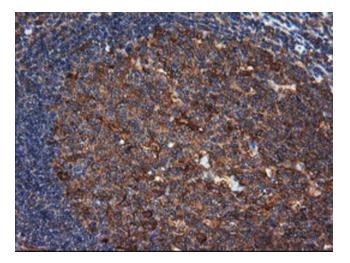




Immunohistochemical staining of paraffinembedded Human pancreas tissue within the normal limits using anti-MAP2K1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA506006])

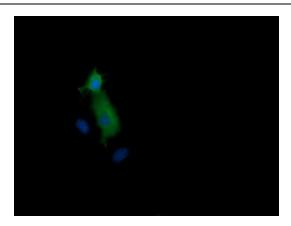


Immunohistochemical staining of paraffinembedded Human endometrium tissue within the normal limits using anti-MAP2K1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA506006])



Immunohistochemical staining of paraffinembedded Human tonsil within the normal limits using anti-MAP2K1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, [TA506006])





Anti-MAP2K1 mouse monoclonal antibody ([TA506006]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY MAP2K1 ([RC218460]).