

## Product datasheet for **TA505680**

### MEK2 (MAP2K2) Mouse Monoclonal Antibody [Clone ID: OTI1A2]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI1A2
Applications:	IF, IHC, WB
Recommended Dilution:	WB 1:200~4000, IHC 1:150, IF 1:100
Reactivity:	Human, Dog, Rat, Monkey, Mouse
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human MAP2K2(NP_109587) produced in HEK293T cell.
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	1 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:	44.2 kDa
Gene Name:	mitogen-activated protein kinase kinase 2
Database Link:	<a href="#">NP_109587</a> <a href="#">Entrez Gene 26396 Mouse</a> <a href="#">Entrez Gene 58960 Rat</a> <a href="#">Entrez Gene 611939 Dog</a> <a href="#">Entrez Gene 721821 Monkey</a> <a href="#">Entrez Gene 5605 Human</a> <a href="#">P36507</a>



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**Background:**

The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is known to play a critical role in mitogen growth factor signal transduction. It phosphorylates and thus activates MAPK1/ERK2 and MAPK2/ERK3. The activation of this kinase itself is dependent on the Ser/Thr phosphorylation by MAP kinase kinase kinases. Mutations in this gene cause cardiofaciocutaneous syndrome (CFC syndrome), a disease characterized by heart defects, mental retardation, and distinctive facial features similar to those found in Noonan syndrome. The inhibition or degradation of this kinase is also found to be involved in the pathogenesis of Yersinia and anthrax. A pseudogene, which is located on chromosome 7, has been identified for this gene. [provided by RefSeq, Jul 2008]

**Synonyms:**

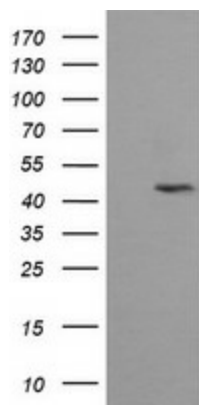
CFC4; MAPKK2; MEK2; MKK2; PRKMK2

**Protein Families:**

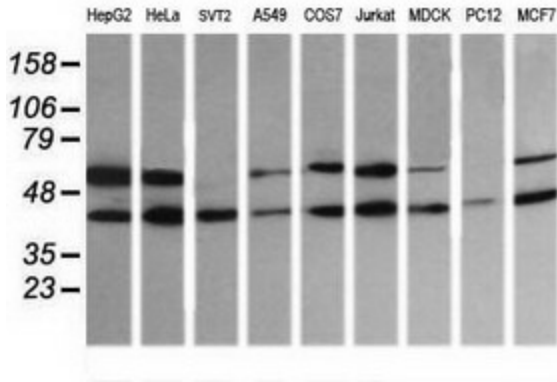
Druggable Genome, Protein Kinase

**Protein Pathways:**

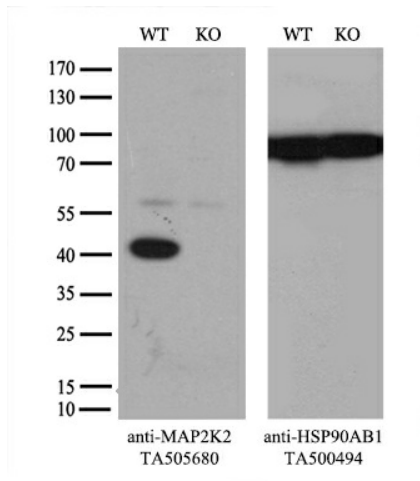
Acute myeloid leukemia, B cell receptor signaling pathway, Bladder cancer, Chronic myeloid leukemia, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Gap junction, Glioma, GnRH signaling pathway, Insulin signaling pathway, Long-term depression, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Melanoma, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Pathways in cancer, Prion diseases, 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:**

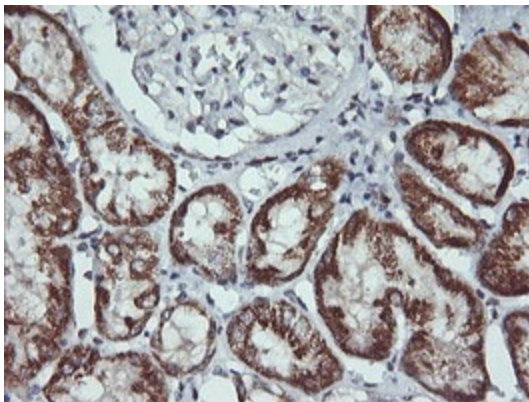
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY MAP2K2 ([RC201827], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MAP2K2 (TA505680). Positive lysates [LY403069] (100ug) and [LC403069] (20ug) can be purchased separately from OriGene.



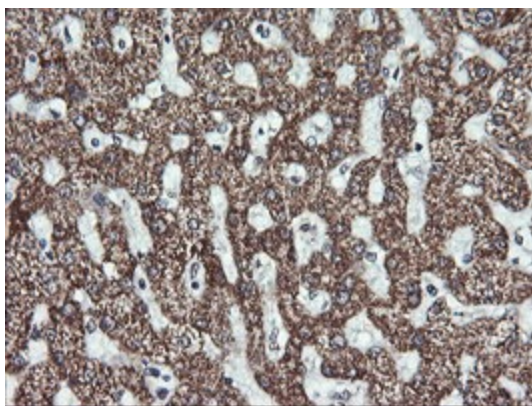
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-MAP2K2 monoclonal antibody (HepG2: human; HeLa: human; SVT2: mouse; A549: human; COS7: monkey; Jurkat: human; MDCK: canine; PC12: rat; MCF7: human).



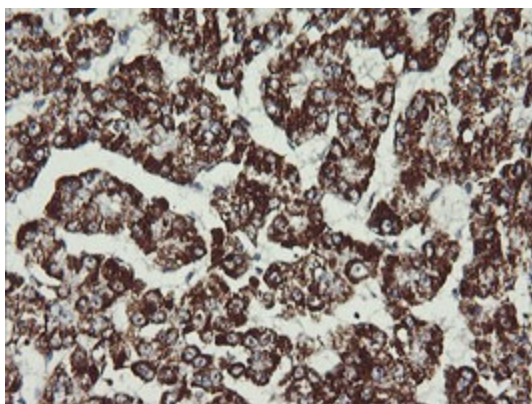
Equivalent amounts of cell lysates (10 ug per lane) of wild-type 293T cells (WT, Cat# LC810293T) and MAP2K2-Knockout 293T cells (KO, Cat# [LC810498]) were separated by SDS-PAGE and immunoblotted with anti-MAP2K2 monoclonal antibody TA505680, (1:500). Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([TA500494]) as a loading control.



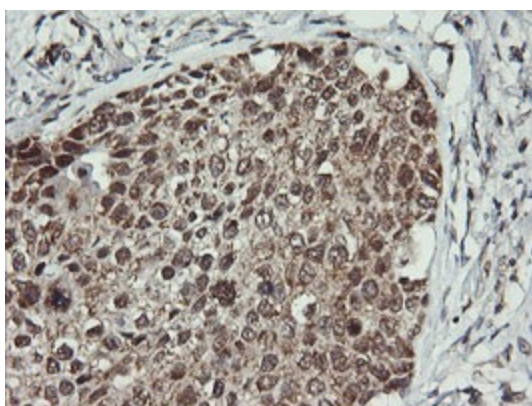
Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, TA505680)



Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, TA505680)

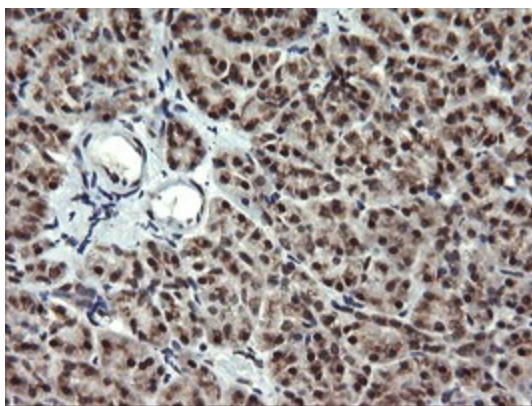


Immunohistochemical staining of paraffin-embedded Carcinoma of Human liver tissue using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, TA505680)

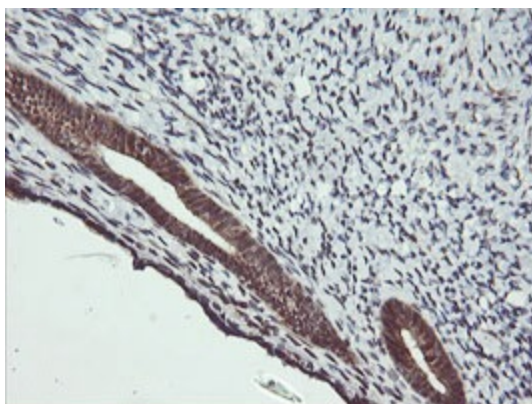


Immunohistochemical staining of paraffin-embedded Carcinoma of Human lung tissue using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, TA505680)

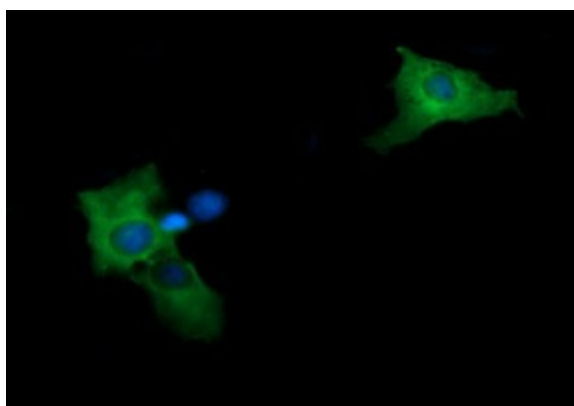




Immunohistochemical staining of paraffin-embedded Human pancreas tissue within the normal limits using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, TA505680)



Immunohistochemical staining of paraffin-embedded Human endometrium tissue within the normal limits using anti-MAP2K2 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120°C for 3min, TA505680)



Anti-MAP2K2 mouse monoclonal antibody (TA505680) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY MAP2K2 ([RC201827]).