

## Product datasheet for PH301827

### MEK2 (MAP2K2) (NM\_030662) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	MAP2K2 MS Standard C13 and N15-labeled recombinant protein (NP_109587)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC201827
Predicted MW:	44.2 kDa
Protein Sequence:	>RC201827 representing NM_030662 Red=Cloning site Green=Tags(s)

MLARRKPVLPALNTINPTIAEGPSPTSEGASEANLVDLQKKLEELDEQQKRLAFLTQKAKVGELKDD  
DFERISELGAGNGGVTKVQHRPSGLIMARKLIHLEIKPAIRNQIIRELQVLHECNSPYIVGFYGAFFYSD  
GEISICMEHMDGGSLDQVLKEAKRIPEEILGKVSIAVLRGLAYLREKHQIMHRDVKPSNILVNSRGEIKL  
CDFGVSGQLIDSMANSFVGTRSYMAPERLQGTHYSVQSDIWSMGLSLVELAVGRYPIPPPDAKELEAIFG  
RPVVDGEEGEPHSISPRPRPPGRPVSGHGMSRPAMAFELLDYIVNEPPPPLPNGVFTPDFQEFVNKCL  
IKNPAERADLKMLTNHTFIKRSEVEEVDFAGWLCKTLRLNQPGTPTRTAV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<a href="#">NP_109587</a>
RefSeq Size:	1759
RefSeq ORF:	1200
Synonyms:	CFC4; MAPKK2; MEK2; MKK2; PRKMK2
Locus ID:	5605



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UniProt ID: [P36507](#)

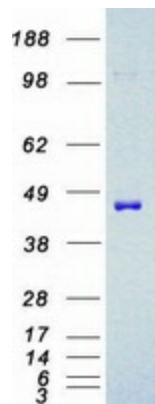
Cytogenetics: 19p13.3

**Summary:** 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 kinases. Mutations in this gene cause cardiofaciocutaneous syndrome (CFC syndrome), a disease characterized by heart defects, cognitive disability, 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]

**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:



Coomassie blue staining of purified MAP2K2 protein (Cat# [TP301827]). The protein was produced from HEK293T cells transfected with MAP2K2 cDNA clone (Cat# [RC201827]) using MegaTran 2.0 (Cat# [TT210002]).