

Product datasheet for **SC323696**

MEK1 (MAP2K1) (NM_002755) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MEK1 (MAP2K1) (NM_002755) Human Untagged Clone
Tag:	Tag Free
Symbol:	MEK1
Synonyms:	CFC3; MAPKK1; MEK1; MEL; MKK1; PRKMK1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323696 sequence for NM_002755 edited (data generated by NextGen Sequencing)

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ATGCCCAAGAAGAAGCCGACGCCCATCCAGCTGAACCCGCCCCCGACGGCTCTGCAGTT
AACGGGACCAGCTCTGCGGAGACCAACTTGGAGGCCTTGCAGAAGAAGCTGGAGGAGCTA
GAGCTTGATGAGCAGCAGCGAAAGCGCCTTGGAGCCTTTCTTACCCAGAAGCAGAAGGTG
GGAGAAGTGAAGGATGACGACTTTGAGAAGATCAGTGAGCTGGGGCTGGCAATGGCGGT
GTGGTGTTC AAGGTCTCCACAAGTCTTCTGGCCTGGTCATGGCCAGAATGCTAATTCAT
CTGGAGATCAAACCCGCAATCCGGAACCAGATCATAAGGGAGCTGCAGGTTCTGCATGAG
TGCAACTCTCCGTACATCGTGGGCTTCTATGGTGCGTTCTACAGCGATGGCGAGATCAGT
ATCTGCATGGAGCACATGGATGGAGTTCTCTGGATCAAGTCCTGAAGAAAGCTGGAAGA
ATTCCTGAACAAATTTTAGGAAAAGTTAGCATTGCTGTAATAAAAGGCCCTGACATATCTG
AGGGAGAAGCACAAAGATCATGCACAGAGATGTCAAGCCCTCCAACATCCTAGTCAACTCC
CGTGGGGAGATCAAGCTCTGTGACTTTGGGGTCAGCGGGCAGCTCATCGACTCCATGGCC
AACTCCTTCGTGGGCACAAGGTCTACATGTCCGACAGAAAGACTCCAGGGGACTCATTAC
TCTGTGCAGTCAGACATCTGGAGCATGGGACTGTCTCTGGTAGAGATGGCGGTTGGGAGG
TATCCCATCCCTCCTCCAGATGCCAAGGAGCTGGAGCTGATGTTTGGGTGCCAGGTGGAA
GGAGATGCGGCTGAGACCCACCCAGGCCAAGGACCCCGGGAGGCCCTTAGCTCATAC
CCTCCTCCTCAAACTGCCAGTGGAGTGTTCAGTCTGGAATTTCAAGATTTTGTGAATAAA
TGCTTAATAAAAAACCCCGCAGAGAGAGCAGATTTGAAGCAACTCATGGTTCATGCTTTT
ATCAAGAGATCTGATGCTGAGGAAGTGGATTTTGCAGGTTGGCTCTGCTCCACCATCGGC
CTTAACCAGCCCAGCACACCAACCCATGCTGCTGGCGTCTAA

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Clone variation with respect to NM_002755.3
265 c=>t;290 a=>t



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5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_002755 unedited GCCGCCGTTTGTAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA ACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGTTGAGAGAGAGA GAGGAAGGGAATCCCGGGCTGCCGAACCGCACGTTTCAGCCCGCTCCGCTCCTGCAGGGCAGCCTTTCGGC TCTCTGCGCGCGAAGCCGAGTCCCGGGCGGGTGGGGCGGGGTCCACTGAGACCGCTACCGGCCCTCGG CGCTGACGGGACCGCGCGGGGGCAGCCGCTGAAGGCAGCCCGGGGCCCGGGCCCGGACTTTGGT CCTGCGCAGCGGGGCGCGGGGGCAGCGCAGCGGGGAGGAGCCAAGAAGGTGCTGCCCTTCCCCCGAATT GGGAGCCCGTTACCGGGTCCAAAAGGCCAAAAGAAGCCCAACCCCTTCCACCTGACCCCGGCCCC GCCGGCTTGGCAGTTAACGGGACCAGCTTTCGGGAACCAAACTGGGAGGCCTTGCAAAAAACCTGGAGG GCCTAACTTTGGTGACCACACGAAAAGCCCTTGGGCCTTTTTTACCCAACCAAGGGGAAAACTGAGGAA CACATTTGAAATATCGTGCCGGGCGGGATGGGGGTGTGTTAGGTCCCAATTCTGGCCGTGTGGGCCAT GTGCATTCTGGATATACCCATCTGGACCATACAGAGACCGCGCTCTGATCGGACACTCCACTAGGGTCTA GGGGGGCT
Kinase Domain Sequence:	>SC323696 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation CYCTGMGCAATGGGCGKAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCA GAATTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGTTGAGAGAGAGAGAGGAAG GGAATCCCGGGCTGCCGAACCGCACGTTTCAGCCCGCTCCGCTCCTGCAGGGCAGCCTTTCGGCTCTG GCGCGAAGCCGAGTCCCGGGCGGGTGGGGCGGGGTCCACTGAGA
Restriction Sites:	Please inquire
ACCN:	NM_002755
Insert Size:	2550 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell , 2008 May p536-548.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_002755.2 , NP_002746.1
RefSeq Size:	2222 bp
RefSeq ORF:	1182 bp

Locus ID:	5604
UniProt ID:	Q02750
Cytogenetics:	15q22.31
Domains:	pkinase, TyrKc, S_TKc
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
Gene Summary:	<p>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 2008]</p>