

Product datasheet for **SC323493**

MEK3 (MAP2K3) (NM_145109) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MEK3 (MAP2K3) (NM_145109) Human Untagged Clone
Tag:	Tag Free
Symbol:	MEK3
Synonyms:	MAPKK3; MEK3; MKK3; PRKMK3; SAPKK-2; SAPKK2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323493 sequence for NM_145109 edited (data generated by NextGen Sequencing)

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ATGGAGTCGCCCGCCTCGAGCCAGCCCGCCAGCATGCCCCAGTCCAAAGGAAAATCCAAG
AGGAAGAAGGATCTACGGATATCCTGCATGTCCAAGCCACCCGACCCCAACCCACACCC
CCCCGGAACCTGGACTCCCGGACCTTCATCACCATTGGAGACAGAACTTTGAGGTGGAG
GCTGATGACTTGGTGACCATCTCAGAACTGGGCCGTGGAGCCTATGGGGTGGTAGAGAAG
GTGCGGCACGCCAGAGCGGCACCATCATGGCCGTGATGCGGATCCGGGCCACCGTGAAC
TCACAGGAGCAGAAGCGGCTGCTCATGGACCTGGACATCAACATGCGCACGGTCGACTGT
TTCTACACTGTCACCTTCTACGGGGCACTATTCAGAGAGGGAGACGTGTGGATCTGCATG
GAGCTCATGGACACATCCTTGGACAAGTTCTACCGGAAGGTGCTGGATAAAAACATGACA
ATTCCAGAGGACATCCTTGGGGAGATTGCTGTGTCTATCGTGCGGGCCCTGGAGCATCTG
CACAGCAAGCTGTCGGTATCCACAGAGATGTGAAGCCCTCCAATGTCCTTATCAACAAG
GAGGGCCATGTGAAGATGTGTGACTTTGGCATCAGTGGCTACTTGGTGGACTCTGTGGCC
AAGACGATGGATGCCGGCTGCAAGCCCTACATGGCCCCTGAGAGGATCAACCCAGAGCTG
AACCAGAAGGGCTACAATGTCAAGTCCGACGTCTGGAGCCTGGGCATCACCATGATTGAG
ATGGCCATCCTGCGGTTCCCTTACGAGTCTGGGGGACCCCGTTCCAGCAGCTGAAGCAG
GTGGTGGAGGAGCCGTCCCCCAGCTCCCAGCCGACCGTTTCTCCCCGAGTTTGTGGAC
TTCACCTGCTCAGTGCCTGAGGAAGAACCCCGCAGAGCGTATGAGCTACCTGGAGCTGATG
GAGCACCCCTTCTCACCTTGCACAAAACCAAGAAGACGGACATTGCTGCCTTCGTGAAG
GAGATCCTGGGAGAAGACTCATAG
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Clone variation with respect to NM_145109.2
278 a=>t



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5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_145109 unedited ACCGCCCGTTCTCAGCAAAGGGCGGTAGGCGCTGTACGGTTGGGAGGTCTATATAAGCAGAGCTCGTTTA GTGAACCGTCAGAATCTTGAATACGACTCACTATAGGGCGGCCGGAATTCGGCACCAGGCCGCCCGTC GCGGACTCGTCTTGCTGCAGTCGCCGCCGAGTCTCGCCGAGTCGCCGCCGCCGCCGCCGCCGCCGC CGCTGCTCCTCCGCTGGCTGGCCGTCTGCCCGCAGCCATGAGCGTGTCTGGCCCCGGTGGAGCCCGC AGTCCTTAGATTAGTCTCCCCCGCCGTCCAGGACCCACTTGCAGCATGGAGTCGCCCGCCTCGGGCCC GGCGCCGCCAGCATGCCCCATTCCAAAGGAAAATCCAAGAGAAAAAGGATCTCCGAAAGTCTGGGT GTTCCAACCAACCGCCCTGACCCCAAACCCCGAAACCTGGAACCCCGAGCCCTATTACATTTAAA AACAAAGCCTATGAAGGGAGGGCAGGA
Kinase Domain Sequence:	>SC323493 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 TKTCWTCTMSACTGGGCGTGAGCCTATGGGGTGGTAGAGAAGGTGCGGCACGCCAGAGCGGCACCWTC ATGGCCGTGATGCGGATCCGGGCCACCGTGAACCTCACAGGAGCAGAAGCGGCTGCTCATGGACCTGGACA TCAACATGCGCACGGTGCAGTCTTCTACACTGTACCTTCTACGGGCACTATTCARAGAGGGAGACGT GTGGATCTGCATGGAGCTCATGGACACATCCTTGACAAGTTCTA
Restriction Sites:	Please inquire
ACCN:	NM_145109
Insert Size:	2250 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_145109.1 , NP_659731.1
RefSeq Size:	2024 bp
RefSeq ORF:	1044 bp
Locus ID:	5606
UniProt ID:	P46734

Cytogenetics:	17p11.2
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase, Transcription Factors
Protein Pathways:	Amyotrophic lateral sclerosis (ALS), Fc epsilon RI signaling pathway, GnRH signaling pathway, MAPK signaling pathway, Toll-like receptor signaling pathway
Gene Summary:	<p>The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is activated by mitogenic and environmental stress, and participates in the MAP kinase-mediated signaling cascade. It phosphorylates and thus activates MAPK14/p38-MAPK. This kinase can be activated by insulin, and is necessary for the expression of glucose transporter. Expression of RAS oncogene is found to result in the accumulation of the active form of this kinase, which thus leads to the constitutive activation of MAPK14, and confers oncogenic transformation of primary cells. The inhibition of this kinase is involved in the pathogenesis of Yersinia pseudotuberculosis. Multiple alternatively spliced transcript variants that encode distinct isoforms have been reported for this gene. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (B) encodes the longer isoform (B).</p>