

Product datasheet for **SC323554**

MEKK3 (MAP3K3) (NM_002401) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MEKK3 (MAP3K3) (NM_002401) Human Untagged Clone
Tag:	Tag Free
Symbol:	MEKK3
Synonyms:	MAPKKK3; MEKK3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC323554 sequence for NM_002401 edited (data generated by NextGen Sequencing)

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ATGGACGAACAGGAGGCATTGAACTCAATCATGAACGATCTGGTGGCCCTCCAGATGAAC
CGACGTCACCGGATGCCTGGATATGAGACCATGAAGAACAAGACACAGGTCACCTCAAAT
AGGCAGAGTGACGTCAGAATCAAGTTCGAGCACAACGGGGAGAGGCGAATTATAGCGTTC
AGCCGGCTGTGAAATATGAAGATGTGGAGCACAAGGTGACAACAGTATTTGGACAACCT
CTTGACTACATTACATGAACAATGAGCTCTCCATCCTGCTGAAAAACCAAGATGATCTT
GATAAAGCAATTGACATTTTAGATAGAAGCTCAAGCATGAAAAGCCTTAGGATATTGCTG
TTGTCCCAGGACAGAAACCATAACAGTTCTCTCCCACTCTGGGGTGTCCAGACAGGTG
CGGATCAAGGCTTCCCAGTCCGCAGGGGATATAAATACTATCTACCAGCCCCCGAGCCC
AGAAGCAGGCACCTCTGTGCTCAGCTCCCAGAACCCTGGCCGAAGCTCACCTCCCCCTGGC
TATGTTCTGAGCGGCAGCAGCACATTGCCCGCAGGGGTCTACACCAGCATCAACAGT
GAGGGGGAGTTTATCCCAGAGACCAGCAGCAGTGCATGCTGGATCCCCTGAGCAGTGCA
GAAAATTCCTTGTCTGGAAGCTGCCAATCCTTGGACAGGTGAGCAGACAGCCATCCTTC
CGGAAATCACGAATGTCCCGTGCCAGAGCTTCCCTGACAACAGACAGGAATACTCAGAT
CGGGAAACTCAGCTTTATGACAAAGGGGTCAAAGGTGGAACCTACCCCGCGCTACCAC
GTGCTGTGCACCACAAGGACTACAGTGTGGCAGAAGAACATTTCCCGAATACGGCGT
CATCAAGGCAACTTGTTCACCCTGGTGCCTCCAGCCGCTCCCTGAGCACAATGGCGAG
AACATGGGTCTGGCTGTGCAATACCTGGACCCCGTGGCGCCTGCGGAGTGCGGACAGC
GAGAATGCCCTCTCTGTGAGGAGAGGAATGTGCCAACCAAGTCTCCAGTGCCCCATC
AACTGGCGCCGGGAAAGCTCCTGGGCCAGGGTGCCTTCGGCAGGGTCTATTTGTGCTAT
GACGTGGACACGGGACGTGAACCTGCTTCCATGCAGGTCCAATTTGATCCAGACAGTCTT
GAGACAAGCAAGGAGGTGAGTGTCTGGAGTGGAGATCCAGTTGCTAAAGAACTTGACAG
CATGACGCATCGTGCAGTACTATGGCTGTCTGCGGGACCGCGCTGAGAAGACCCTGACC
ATCTTCATGGAGTACATGCCAGGGGCTCGGTGAAAGACCAGTTGAAGGCTTACGGTGT
CTGACAGAGAGCGTGACCCGAAAGTACACGCGGCAGATCCTGGAGGGCATGCTCTACCTG
CACAGCAACATGATTGTTACCGGGACATTAAGGGAGCCAACATCCTCCGAGACTCTGCT
GGGAATGTAAGCTGGGGACTTTGGGGCCAGCAAACGCCTGCAGACGATCTGTATGTGC
GGGACGGGCATGCGCTCCGTCACTGGCACACCCTACTGGATGAGCCCTGAGGTGATCAGC
GGCGAGGGCTATGGAAGGAAAGCAGACGTGTGGAGCCTGGGCTGCACTGTGGTGGAGATG
CTGACAGAGAAACCACCTGGGCAGAGTATGAAGCTATGGCCGCATCTTCAAGATTGCC
ACCCAGCCACCAATCCTCAGCTGCCCTCCCACATCTCTGAACATGTCCGGGACTTCCTG
AGGCGCATTTTTGTGGAGGCTCGCCAGAGACCTTCAGCTGAGGAGCTGCTCACACACCAC
TTTGCACAGCTCATGTACTGA

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Clone variation with respect to NM_002401.3
 1172 a=>t;1787 g=>t

5' Read Nucleotide Sequence: >OriGene 5' read for mutant NM_002401 unedited

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CGTCCGCCATAACAACGGGCGGAGGCGAGAACGGTGGAGGTAAATAAGCAGAGCACGAAAAGCGAACCGT
CAGAACAAGAAATACGACACACAAAAGGGCGGCCGGAATACGGCACCAGGCCCGCGCGGAGCCAG
GCCCGTCCGCTCCCGCCGCGGGCCCGGCATGCAGCCCGGCTGGGAGGTGACACTCACGGACCT
TAGCCACCGCCGCGCCATCGCCACCATGGACGAACAGGAGGCATTGAACTCAATCATGAACGATCTGGT
GGCCCTCCAGATGAACCGACGTACCGGATGCCTGGATATGAGACCATGAAGAACAAGACACGGTCACT
CAAATAGGCAGAGTGACGTCAGAATCAAGTTCGAGCACAACGGGGAGAGCGAATATAGCGTTAGCCGGCC
TGTA AAAATGAAATGTGAGCACAAGGTACAAATATTGGACAACCTCGAATCTCAAACATAACAGGAGT
CTCAACCTCTAAAAAATAATCTGGATAGCAATAATTTAATAAACCTCAGCTTGA AAAACCTTAGAAT
TTGTTGTTTCCAGGAAAAAACCTAAAATTTCTCCCCCCTTGGGGGTTCCAAAACGGGGCGAT
CAGGTTTCCCTTCCCGGGAATAAAATTTTCCCCCCCCCCCCAAAAAAGGGCCTTTTTTTT
TATCCAAAACCCCGCCAGAAGACACCCCGTGTATTTTTTTAGCGACACCTTTTGCGCGAGGT
GCCCTCAACTCTCTGGGGGGAATCCCAACAACAGCC

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Kinase Domain Sequence:	>SC323554 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 CTCAGTGCCCCATCACTGGCGCCGGGAAGCTCCTGGGCCAGGGTGCCTTCGGCAGGGTCTATTTGTGCT ATGACGTGGACACGGGACGTGAACCTTGCTTCCATGCAGGTCCAATTTGATCCAGACAGTCTGAGACAAG CAAGGAGGTGAGTGCTCTGGAGTGCAGATCCAGTTGCTAAAGAAGTTCAGCATGAGCGCATCGTGCAG TACTATGGCTGTCTGCGGACCGCGCTGAGAAGACCCTGACCATC
Restriction Sites:	Please inquire
ACCN:	NM_002401
Insert Size:	3460 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_002401.3 , NP_002392.2
RefSeq Size:	4750 bp
RefSeq ORF:	1881 bp
Locus ID:	4215
UniProt ID:	Q99759
Cytogenetics:	17q23.3
Domains:	PB1, pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	GnRH signaling pathway, MAPK signaling pathway, Neurotrophin signaling pathway

Gene Summary:

This gene product is a 626-amino acid polypeptide that is 96.5% identical to mouse Mekk3. Its catalytic domain is closely related to those of several other kinases, including mouse Mekk2, tobacco NPK, and yeast Ste11. Northern blot analysis revealed a 4.6-kb transcript that appears to be ubiquitously expressed. This protein directly regulates the stress-activated protein kinase (SAPK) and extracellular signal-regulated protein kinase (ERK) pathways by activating SEK and MEK1/2 respectively; it does not regulate the p38 pathway. In cotransfection assays, it enhanced transcription from a nuclear factor kappa-B (NFkB)-dependent reporter gene, consistent with a role in the SAPK pathway. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) lacks an in-frame coding exon compared to variant 1. The resulting isoform (2) lacks an internal region, as compared to isoform 1.