

Product datasheet for **SC323646**

MAPK4 (NM_002747) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MAPK4 (NM_002747) Human Untagged Clone
Tag:	Tag Free
Symbol:	MAPK4
Synonyms:	ERK-4; ERK4; p63-MAPK; p63MAPK; PRKM4
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC323646 sequence for NM_002747 edited (data generated by NextGen Sequencing)

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ATGGCTGAGAAGGGTGACTGCATCGCCAGTGTCTATGGGTATGACCTCGGTGGGCGCTTT
GTTGACTTCCAACCCCTGGGCTTCGGTGTCAATGGTTTGGTGCTGCGGCCGTGGACAGC
CGGGCTGCCGGAAGGTCGCTGTGATGAAGATTGCCCTGAGCGATGCCCCGAGCATGAAG
CACGCGCTCCGAGAGATCAAGATCATTCCGGCGCCTGGACCACGACAACATCGTCAAAGTG
TACGAGGTGCTCGGTCCCAAGGGCACTGACCTGCAGGGTGAGCTGTTCAAGTTCAGCGTG
GGGTACATCGTCCAGGAGTACATGGAGACCGACCTGGCACGCCTGCTGGAGCAGGGCACG
CTGGCAGAAGAGCATGCCAAGCTGTTTATGTACCAGCTGCTCCGCGGGCTCAAGTACATC
CACTCCGCCAACGTGCTGCACAGGGACCTGAAGCCCGCCAACATCTTCATCAGCACAGAG
GACCTCGTCTCAAGATTGGGGATTTCCGGTTGGCAAGGATCGTTGATCAGCATTACTCC
CACAAGGGTTATCTGTCAGAAGGGTTGGTAACAAAGTGGTACCCTTCCCCAGACTGCTC
CTTTCCCCAATAACTACACCAAAGCCATCGACATGTGGGCCCGCCGGCTGCATCTGGCT
GAGATGCTTACGGGGAGAATGCTCTTTGCTGGGGCCCATGAGCTGGAGCAGATGCAACTC
ATCCTGGAGACCATCCCTGTAATCCGGGAGGAAGACAAGGACGAGCTGCTCAGGGTGATG
CCTTCCTTTGTCAGCAGCACCTGGGAGGTGAAGAGGCCTCTGCGCAAGCTGCTCCCTGAA
GTGAACAGTGAAGCCATCGACTTCTGGAGAAGATCCTGACCTTTAACCCATGGATCGC
CTAACAGCTGAGATGGGGCTGCAACACCCCTACATGAGCCATACTCGTGCCCTGAGGAC
GAGCCACCTCACAACACCCCTTCCGCATTGAGGATGAGATCGACGACATCGTGTGATG
GCCGCTAACAGAGCCAGCTGTCCAACCTGGGACACGTGCAGTTCAGGTACCCTGTGAGC
CTGTGCTCGGACCTGGAGTGGCGGCCTGACCGGTGCCAGGACGCCAGCGAGGTACAGCGC
GACCCGCGCGGGTTCGGCGCCACTGGCTGAGGACGTGCAGGTGGACCCGCGCAAGGAC
TCGCACAGCAGCTCCGAGCGCTTCTAGAGCAGTGCACCTCGTCCATGGAGCGCGCTTC
GAGGCCGACTACGGGCGCTCCTGCGACTACAAGGTGGGGTCCGCCCTCTACCTGGACAAG
CTGCTGTGGCGCGACAACAAGCCGACCACTACTCGGAGCCCAAGCTCATCTGGACCTG
TCGCACTGGAAGCAGGCGGCCGCGCGCCCCACGGCCACGGGGCTGGCGGACACGGGG
GCGCGCGAGGACGAGCCGCCAGCCTTCTTCTGGAGATCGCGCAGTGGGTCAAGAGCAGC
CAGGGCGGCCAGAGCACGCCAGCCCGCCGCGACGACCCGAGCGCCGCTTGTCTGCC
TCGCCCCCGGCCCGCCCGCCCGGTGGACGGCGGCCAGCCCCAGTTCGACCTGGAC
GTGTTTCTCTCCGCGCCCTGAAGCTCTGCACCAAGCCGAGGACCTGCCGACAATAAA
CTGGGCGACCTCAATGGTGCCTGCATCCCCGAGCACCTGGCGACCTCGTGCAGACCGAG
GCCTTCTCCAAGAAAGTGTGTGA

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Clone variation with respect to NM_002747.3
146 a=>t

5' Read Nucleotide Sequence: >OriGene 5' read for mutant NM_002747 unedited

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CCGCACCCTTGAGCACATGGGCGGTAGGCGTGTACGGAGCGAAGTCTATATACAGCAGAGCTCGTTTAG
TGAACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCACAGAAAGA
GGCTGTGACACAGCTGAGCTTTGGAGCATCTTAAGGAGCTCAGCTCAGCAAACTCTTGCATTTTCAGC
CAGAAAGAGCCTCTTGAACAAAGTATTCAAAGGGGAGAGTTTCTGCATCTTTTACTTTGACAGTCCACTA
TGGTAGAAAATGACATTCCATAGATAATGATACTGGGTTTTCTTCCAAGATGCCAGCTTTAAAAGAG
ATATGTGCCATTCTAAGCTTTAAGAGGGTTCAGAACACAGGAAATAGTAGACAGCCCTCCCATGCAGGT
TAAGACGACAGCCTGCGCCCCAACTAGCACAGCTCAGCGAGCATGACCATATGCCATTCTCGTCTCAGA
GAGCTGGTGCAGTGACCTCACTAGGAGAAAACACATCCCTCAGCCGTGGACTGACAAATGAGGTGCCGCG
AGGAGCCCCTAGCGGAACCTTGGCCTTTCTGACTGCCTGTGTGTTAACTGGGCAGCTCGAATACATGGAC
CCACAATGCCTGAAAGGTGAACTGCATCGCCATGTTTATAGGTATGAGACCTGTGCCTTGGTACATCCAC
ACCTTGGCTCAGTCCAATGTTGTGCTCTCGCGCCTTGACACCCGCTTCGCAAGTGCCCTGATGAAATTGC
CTAGCGATGATCCCGCACTGTAGAACCCTTCTAGATCTATATCTGCGCGTGACACAGAACACTTCAA
AGTGTCACGAGTCGTCTAGACGGCTATCGCATGGGAACGCTATTATCTGGTACTATCGAAATAGAGAAA
CTGCGTCTTGCAGGACCGTCTACAATGCCACGCTAGT

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Kinase Domain Sequence:	>SC323646 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 GTKMTCACCCCTGGGCTTCGGTGTTCATGGTTTGGTGCTGTCGGCCGTGGACAGCCGGGCTGCCGGAAGGT CGCTGTGATGAAGATTGCCCTGAGCGATGCCCGCAGCATGAAGCACGCGCTCCGAGAGATCAAGATCATT CGGCGCCTGGACCACGACAACATCGTCAAAGTGTACGAGGTGCTCGGTCCCAAGGGCACTGACCTGCAGG GTGAGCTGTTCAAGTTCAGCGTGGCGTACATCGTCCAGGAGTACA
Restriction Sites:	Please inquire
ACCN:	NM_002747
Insert Size:	4220 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_002747.2 , NP_002738.1
RefSeq Size:	4173 bp
RefSeq ORF:	1674 bp
Locus ID:	5596
UniProt ID:	P31152
Cytogenetics:	18q21.1-q21.2
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase

Gene Summary:

Mitogen-activated protein kinase 4 is a member of the mitogen-activated protein kinase family. Tyrosine kinase growth factor receptors activate mitogen-activated protein kinases which then translocate into the nucleus and phosphorylate nuclear targets. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014]
Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).