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Product datasheet for SC323484

MAPK15 (NM_139021) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MAPK15 (NM_139021) Human Untagged Clone
Tag:	Tag Free
Symbol:	MAPK15
Synonyms:	ERK7; ERK8
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

Fully Sequenced ORF:

>NCBI ORF sequence for NM_139021, the custom clone sequence may differ by one or more nucleotides

ATGTGCACCGTAGTGGACCCTCGCATTGTCCGGAGATACCTACTCAGGCGGCAGCTCGGGCAGGGGGCCT
ATGGCATTGTGTGGAAGGCAGTGGACCGGAGGACTGGTGAGGTCGTGGCCATCAAGAAAATCTTTGATGC
TTTTAGGGATAAGACAGATGCCCAGAGAACATTCCGGGAAATCACGCTCCTCCAGGAGTTTGGGGACCAT
CCCAACATCATCAGCCTCCTTGACGTGATCCGGGCAGAGAACGACAGGGACATTTACCTGGTGTTTGAGT
TTATGGACACTGACCTGAACGCAGTCATCCGGAAGGGCGGCCTGCTGCAGGACGTCCACGTGCGCTCCAT
CTTCTACCAGCTCCTGCGGGCCACCCGGTTCCTCCACTCGGGGCACGTTGTGCACCGGGACCAGAAGCCG
TCCAATGTGCTCCTGGATGCCAACTGCACAGTGAAGCTGTGTGACTTTGGCCTGGCCCGCTCCCTGGGCG
ACCTCCCCGAGGGGCCTGAGGACCAGGCCGTGACAGAGTACGTGGCCACACGCTGGTACCGAGCACCGGA
GGTGCTGCTCTCTTCGCACCGATACACCCTTGGGGTGGACATGTGGAGTCTGGGCTGTATCCTGGGGGAG
ATGCTGCGGGGGAGACCCCTGTTCCCCGGCACGTCCACCCTCCACCAGCTGGAGCTGATCCTGGAGACCA
TCCCACCGCCATCTGAGGAGGACCTCCTGGCTCTCGGCTCAGGCTGCCGTGCCTCTGTGCTGCACCAGCT
GGGGTCCCGGCCACGACAGACGCTGGATGCCCTCCTACCGCCAGACACCTCCCCAGAGGCCTTGGACCTC
CTTAGGCGACTCCTGGTGTTCGCCCCGGACAAGCGGTTAAGCGCGACCCAGGCACTGCAGCACCCCTACG
TGCAGAGGTTCCACTGCCCCAGCGACGAGTGGGCACGAGAGGCAGATGTGCGGCCCCGGGCACACGAAGG
GGTCCAGCTCTCTGTGCCTGAGTACCGCAGCCGCGTCTATCAGATGATCCTGGAGTGTGGAGGCAGCAGC
GGCACCTCGAGAGAGAAGGGCCCGGAGGGTGTCTCCCCAAGCCAGGCACACCTGCACAAACCCAGAGCCG
ACCCTCAGCTGCCTTCTAGGACACCTGTGCAGGGTCCCAGACCCAGGCCCCAGAGCAGCCCAGGCCATGA
CCCTGCCGAGCACGAGTCCCCCCGTGCAGCCAAGAACGTTCCCAGGCAGAACTCCGCTCCCCTGCTCCAA
ACTGCTCTCCTAGGGAATGGGGAAAGGCCCCCTGGGGCGAAGGAAGCGCCCCCCTTGACACTCTCGCTGG
TGAAGCCAAGCGGGAGGGGAGCTGCGCCCTCCCTGACCTCCCAGGCTGCGGCTCAGGTGGCCAACCAGGC
CCTGATCCGGGGTGACTGGAACCGGGGCGGTGGGGTGAGGGTGGCCAGCGTACAACAGGTCCCTCCCCGG
CTTCCTCCGGAGGCCCGGCCCGGCCGGAGGATGTTCAGCACCTCTGCCTTGCAGGGTGCCCAGGGGGGTG
CCAGGGCTTTGCTTGGAGGCTACTCCCAAGCCTACGGGACTGTCTGCCACTCGGCACTGGGCCACCTGCC
CCTGCTGGAGGGGCACCATGTGTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_139021 unedited
CCCGCCCGTCTCAGCAACTGGGCGGTAGGCGCTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAG
TGAACCGTCAGAATATTGTAATACGACTCACTATAGGGCGGCCGCGAATTCCCGGGATCGACTCAACAGT
AAGGCCCCGCGGGCGTCCTGGCCGCCATGTGCACCGTAGTGGACCCTCGCATTGTCCGGAGATACCTACT
CAGGCGGCAGCTCGGGCAGGGGGCCTATGGCATTGTGTGGAAGGCAGTGGACCGGAGGACTGGTGAGGTC
GTGGCCATCATGAAAATCTTTGATGCTTTTTAGGGATAAGACAGATGCCCCAGAGAACATTTCCGGGAAA
TCACGCTCCCTCCCAGGAGTTTTGGGGGACCCATCCCCAACATCATCAGCCCTCCTTGACGTTGATCCCG
GGCAGAAGAACGAACAGGGACATTTTACCCTGGTTGTTTGAAGTTTTATGGTTTGCCCCCCCCAGCCCCC
CCACCCCCGGACTGGAGTTGGCGCACCCTTCTGCAAACCTGACCTGAACGCAGTATTCCGGAAGGGCCGG
CCGGGTGAGGAACTTCCCGTGCGTCACTTTTCACAAGTTCGGGGGCCACCGGTTCCTCACTCGGGAATGT
GTGCCCGGACCAACCTCCAATGGTCTCGGATGCATTGCATGAACCTTGAATTGCCGGCGCGCCGGGAACT
CCTGAGGCCTGGCCGCCGTGAAATCTTGCCACCGATCACACGGGGGGGCT

Kinase Domain Sequence:

>SC323484 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation
CSATKMGCATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCA
GAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCCCGGGATCGACTCAACAGTAAGGCCCCGC
GGGCGTCCTGGCCGCCATGTGCACCGTAGTGGACCCTCGCATTGTCCGGAGATACCTACTCAGGCGGCAG
CTCGGGCAGGGGGCCTATGGCATTGTGTGGAAGGCAGTGGACCGG

Restriction Sites:

Please inquire

ACCN:	NM_139021
Insert Size:	2328 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:	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_139021.1, NP_620590.1
RefSeq Size:	1904 bp
RefSeq ORF:	834 bp
Locus ID:	225689
UniProt ID:	Q8TD08
Cytogenetics:	8q24.3
Protein Families:	Druggable Genome, Protein Kinase

Gene Summary: Atypical MAPK protein that regulates several process such as autophagy, ciliogenesis, protein trafficking/secretion and genome integrity, in a kinase activity-dependent manner (PubMed:22948227, PubMed:24618899, PubMed:29021280, PubMed:21847093, PubMed:20733054). Controls both, basal and starvation-induced autophagy throught its interaction with GABARAP, MAP1LC3B and GABARAPL1 leading to autophagosome formation, SQSTM1 degradation and reduced MAP1LC3B inhibitory phosphorylation (PubMed:22948227). Regulates primary cilium formation and the localization of ciliary proteins involved in cilium structure, transport, and signaling (PubMed:29021280). Prevents the relocation of the sugar-adding enzymes from the Golgi to the endoplasmic reticulum, thereby restricting the production of sugar-coated proteins (PubMed:24618899). Upon amino-acid starvation, mediates transitional endoplasmic reticulum site disassembly and inhibition of secretion (PubMed:21847093). Binds to chromatin leading to MAPK15 activation and interaction with PCNA, that which protects genomic integrity by inhibiting MDM2-mediated degradation of PCNA (PubMed:20733054). Regulates DA transporter (DAT) activity and protein expression via activation of RhoA (PubMed:28842414). In response to H(2)O(2) treatment phosphorylates ELAVL1, thus preventing it from binding to the PDCD4 3' UTR and rendering the PDCD4 mRNA accessible to miR-21 and leading to its degradation and loss of protein expression (PubMed:26595526). Also functions in a kinase activity-independent manner as a negative regulator of growth (By similarity). Phosphorylates in vitro FOS and MBP (PubMed:11875070, PubMed:16484222, PubMed:20638370, PubMed:19166846). During oocyte maturation, plays a key role in the microtubule organization and meiotic cell cycle progression in oocytes, fertilized eggs, and early embryos (By similarity). Interacts with ESRRA promoting its re-localization from the nucleus to the cytoplasm and then prevents its transcriptional activity (PubMed:21190936).[UniProtKB/Swiss-Prot Function]