

Product datasheet for **SC120623**

MAPK15 (NM_139021) Human Untagged Clone

Product data:

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|---------------------------|---|
| 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: | <u>pCMV6-XL5</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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Fully Sequenced ORF:

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>OriGene sequence for NM_139021 edited
CGACTCAACAGTAAGGCCCGCGGGCGTCTGGCCGCATGTGCACCGTAGTGGACCCTC
GCATTGTCCGGAGATACTACTCAGGCGGCAGCTCGGGCAGGGGGCTATGGCATTGTGT
GGAAGGCAGTGGACCGGAGGACTGGTGAAGTCTGGCCATCAAGAAAATCTTTGATGCTT
TTAGGGATAAGACAGATGCCAGAGAACATTCGGGAAATCACGCTCCTCCAGGAGTTTG
GGGACCATCCCAACATCATCAGCCTCCTTGACGTGATCCGGGCAGAGAACGACAGGGACA
TTTACCTGGTGTGTTGAGTTTATGGGTTGCCCGCCAGCCCGCCACCCCGACTGCAGTGC
GCACCCTCTCTGCAGACACTGACCTGAACGCAGTCATCCGGAAGGGCGGCCTGCTGCAGG
ACGTCCACGTGCGCTCCATCTTCTACCAGCTCCTGCGGGCCACCCGGTTCTCCACTCGG
GGCACGTTGTGCACCGGGACCAGAAGCCGTCCAATGTGCTCCTGGATGCCAACTGCACAG
TGAAGCTGTGTGACTTTGGCCTGGCCCGCTCCCTGGGCGACCTCCCTGAGGGGCTGAGG
ACCAGGCCGTGACAGAGTACGTGGCCACACGCTGGTACCGAGCACCGGAGGTGCTGCTCT
CTTCGCACCGATACACCCTTGGGTGGACATGTGGAGTCTGGGCTGTATCCTGGGGGAGA
TGCTGCGGGGAGACCCCTGTTCCCGGCACGTCCACCCTCCACCAGCTGGAGCTGATCC
TGGAGACCATCCACCGCCATCTGAGGAGGACCTCCTGGCTCTCGGCTCAGGCTGCCGTG
CCTCTGTGCTGCACCAGCTGGGGTCCCGGTGAGTGGGGGCACTTCGGTGAGGGTGACAGG
GTGGCCTATCTCAAGGGAGCAGGGCCACCTTCTGCAAGTTTACTGGGGCCAGTTTGTAC
CAGTTCAGATTCTGCCTGTTTTCAAGATGGCAGTCCCAAACCAACAAGTGTGGCCACA
CTGAAAGCAGGAGCCCTCTGGTGTCTCTAGAGGGTGGCCAGAGGAGCTGTGCCAGGGC
GTGGAGAGGAGGGCACCAGGGGGCCGACGGGGTCTCTCCACCCTGCAGGGGCCAGACTG
CCTGCAGTGCAGGCACAGGGCATCTACCTAGACAGGACAGCAGGGTGGACCCAGTTTG
GAAGCTGAGCCCCAGCCACGAACATGGATCTGAGGAGGGGCCCTTGGGTGCGGCCCTGG
AGACGACACAGGCAGCCACAGGCCACGACAGACGCTGGATGCCCTCCTACCGCCAGAC
ACCTCCCCAGAGCCTTGGACCTCCTTAGGCGACTCCTGGTGTTCGCCCCGGACAAGCGG
TTAAGCGCGACCCAGGCACTGCAGCACCCCTACGTGCAGAGATGATCCTGGAGTGTGGAG
GCAGCAGCGGCACCTCGAGAGAGAAGGGCCCGGAGGGTGTCTCCCAAGCCAGGCACACC
TGCACAAACCCAGAGCCGACCCTCAGCTGCCTTCTAGGACACCTGTGCAGGGTCCCAGAC
CCAGGCCCCAGAGCAGCCAGGCCATGACCCTGCCGAGCACGAGTCCCCCGTGCAGCCA
AGAAGCTTCCCAGGCAGAACTCCGCTCCCCTGCTCCAACTGCTCTCCTAGGGAATGGGG
AAAGGCCCCCTGGGGCGAAGGAAGCGCCCCCTTGACACTCTCGTGGTGAAGCCAAGCG
GGAGGGGAGCTGCGCCCTCCCTGACCTCCAGGCTGCGGCTCAGGTGGCCAACCAGGCC
TGATCCGGGGTACTGGAACCGGGCGGTGGGGTGAAGGTGGCCAGCGTACAACAGGTCC
CTCCCCGCTTCTCCGGAGGCCCGGCCGCGGAGGATGTTACGACACCTCTGCCTTGC
AGGGTGGCCAGGGGGGTGCCAGGGCTTTGCTTGGAGGCTACTCCCAAGCTACGGGACTG
TCTGCCACTCGGCACTGGGCCACCTGCCCTGCTGGAGGGGACCATGTGTGAGCCGCC
TACTCCCTTACCTGGCCCTCTGTTCTGCCCCAGCCCCCTCCCCAGACCCCTCTCCAGT
CTCCTGCACCCCTTAGCCCTCCCTGCTTGGCTGGCCCGTTGAAGTTCAGGGAGCTTGC
CCGGTCTCCTCGGGGAGCAGATGAGGGCCCTGCCCGCCCACTGACTTCTCCAAT
AAAGTCATGTCTGCCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
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| 5' Read Nucleotide Sequence: | >OriGene 5' read for NM_139021 unedited NATATTGGGATTTGTAACGACTTACTATAGGCGGCCGCGATTCCCGGGGTCGACTCAAC AGTAAGGCCCGCGGGCGTCCTGGCCGCATGTGCACCGTAGTGGACCCTCGCATTGTCC GGAGATACCTACTCAGGCGGCAGCTCGGGCAGGGGGCCTATGGCATTGTGTGGAAGGCAG TGGACCGGAGGACTGGTGAGGTCGTGGCCATCAAGAAAATCTTTGATGCTTTTAGGGATA AGACAGATGCCAGAGAACATTCCGGGAAATCACGCTCCTCCAGGAGTTTGGGGACCATC CCAACATCATCAGCCTCCTTGACGTGATCCGGGCAGAGAACGACAGGGACATTTACCTGG TGTTTGAGTTTATGGGTTGCCCGCCAGCCCCACCCCGACTGCAGTGCACACCCTCT CTGCAGACACTGACCTGAACGCAGTCATCCGGAAGGGCGGCTGTGCAGGACGTCCACG TGCGCTCCATCTTCTACCAGCTCCTGCGGGCCACCCGGTTCCTCCACTCGGGGCACGTTG TGCACCGGGACCAGAAGCCGTCCAATGTGCTCCTGGATGCCAACTGCACAGTGAAGCTGT GTGACTTTGGCCTGGCCCGCTCCTGGGCGACCTCCTGAGGGGCTGAGGACCAGGCCG TGACAGAGTACGTGGCCACACGCTGGTACCCGAGCACCGAGTGTGCTCTTTCCGACC GATACACCCTTGGGTGGACATGTGGAGTCTGGGCTGTATCCTGGGGGAGATGCTGCGGN GGAGACCCTGTTCCCGGCACGTCACCCCTCCACCAGCTGGAGCTGATCCCTGGAGACC ATCCCACCGCCATCTGAGAGGACCTCCTGGCTCTCGGCTCAGGCTGCCGTGCCTCTGTGC TGCACCAGCTGGGGTCCCGGTGAGTGGGGGC |
| 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). |
| 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: | <u>NM_139021.1</u> , <u>NP_620590.1</u> |
| RefSeq Size: | 2328 bp |
| RefSeq ORF: | 834 bp |
| Locus ID: | 225689 |
| UniProt ID: | <u>Q8TD08</u> |
| 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 through 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 ESRRB promoting its re-localization from the nucleus to the cytoplasm and then prevents its transcriptional activity (PubMed:21190936).[UniProtKB/Swiss-Prot Function]