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Product datasheet for MR208733

Mapk15 (NM_177922) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mapk15 (NM_177922) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mapk15
Synonyms:	BC048082
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR208733 representing NM_177922
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTGTGCTGCCGAGGTGGACCGTCATGTAGCCCAGAGATACCTGATCAAGCGGAGGCTTGGGAAGGGGG
CCTATGGCATTGTGTGGAAGGCCATGGACCGGAGGACTGGCGAGGTTGTGGCCATCAAGAAAATCTTTGA
TGCCTTTAGGGACCAGATAGATGCTCAGAGGACCTTCCGTGAGATTATGCTTCTCAAGGAGTTTGGAGGC
CATCCCAACATCATCCGCCTGCTTGATGTAATCCCAGCGAAGAATGACAGGGATATTTACCTGGTGTTTG
AGTCCATGGACACCGACCTGAATGCAGTCATCCAGAAGGGCAGACTACTGAAGGACATCCACAAGCGGTG
CATCTTTTACCAGCTCCTGAGAGCCACCAAGTTTATCCATTCAGGGCGCGTCATCCATCGGGATCAGAAG
CCAGCCAATGTTCTACTGGATTCTGCTTGCCGGGTGAAACTCTGTGACTTTGGCCTGGCACGCTCCCTCG
GTGACCTCCCTGAGGGGCCTGGGGGTCAGGCCCTGACAGAGTATGTGGCCACACGCTGGTACCGAGCTCC
AGAGGTGCTTCTGTCTTCCCGATGGTATACCCCTGGGGTGGACATGTGGAGCCTGGGCTGCATATTAGGA
GAGATGCTTCGAGGGCAGCCACTGTTTCCCGGGACATCTACTTTCCACCAGCTGGAGCTGATCCTGAAGA
CCATCCCATTGCCTTCCATGGAGGAGCTCCAGGACCTTGGCTCAGACTACAGTGCTTTGATTCTGCAGAA
TCTTGGGTCCAGGCCACAGCAGACGCTGGACGCCCTCCTGCCGCCAGACACCCCCCCAGAAGCCCTGGAC
CTCCTCAAGCGACTCTTGGCGTTTGCTCCGGACAAGCGCCTTAGTGCAGAGCAGGCGCTGCAACACCCCT
ACGTGCAGAGATTCCATTGCCCCGACCGCGAGTGGGCACGGGAGTCCGACGTGCGGCTCCCGGTGCACGA
AGGAGACCAGCTCTCTGCACCAGAGTATCGCAAACGCCTGTACCAGATTATCCTGGAGCAAAGTGGGAAC
AGCCGCAGCCCTCGAGAGGAAGGCCTGGGGGTTGTGGCCTCGCGGGCTGAGCTCAGGGCTTCCCCGGCCC
GGACGCAATCGCTCAAGTCGGGAGTCCTCCCCCAGGTCCCGGCGGAGACGCCAGCGCGAAAACGCGGACC
CAAACCTCCGCGTAGCCCTGGTCATGATCCTGAGCATGTGGAAGTTCGCAGGCAGAGCTCAGACCCCCTG
TTCCAACTTCCGCCGCCAGGAAGGGGGGAAAGGCCCCCAGGGGCCACAGGGCAGCCACCCTCGGCACCCT
CAGGGGTGAAGACTCAAGTGAGGGCGATGGCGCCGTCCCTGACTTCACAGGCAGAGGCTCAGGCGGCCAA
TCAGGCTCTGATCCGCAGTGATCCGGCCCGGGGCGGTGGGCCGAGGGCGGTCGGCGCGCGACGGGTCCCT
TCCCGCCTGCCCCGGGAGGCCCCGGAACCCCGACCCGGCCGAAGGATGTTTGGCATCTCGGTCTCGCAGG
GGGCCCAGGGCGCAGCCAGAGCTGCGCTTGGCGGCTACTCCCAGGCCTACGGGACCGTGTGCCGCTCGGC
GCTGGGCCGCCTGCCCCTGCTCCCCGG[AT]CCGCGTGCG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR208733 representing NM_177922
Red=Cloning site Green=Tags(s)

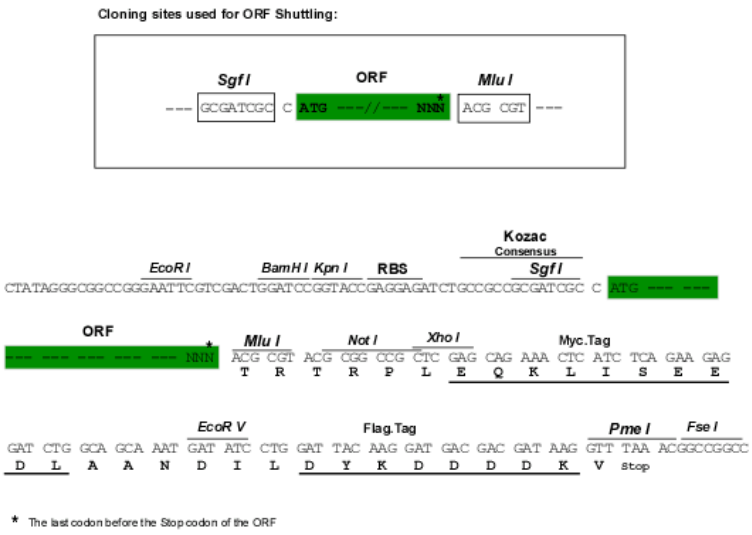
MCAAEVDRHVAQRYLIKRRLGKGAYGIVWKAMDRRTGEVVAIKKIFDAFRDQIDAQRTFREIMLLKEFGG
HPNIIRLLDVIPAKNDRDIYLVFESMDTDLNAVIQKGRLLKDIHKRCIFYQLLRATKFIHSGRVIHRDQK
PANVLLDSACRVKLCDFGLARSLGDLPEGPGGQALTEYVATRWYRAPEVLLSSRWYTPGVDMWSLGCILG
EMLRGQPLFPGTSTFHQLELILKTIPLPSMEELQDLGSDYSALILQNLGSRPQQTLDALLPPDTPPEALD
LLKRLLAFAPDKRLSAEQALQHPYVQRFHCPDREWARESDVRLPVHEGDQLSAPEYRKRLYQIILEQSGN
SRSPREEGLGVVASRAELRASPARTQSLKSGVLPQVPAETPARKRGPKPPRSPGHDPEHVEVRRQSSDPL
FQLPPPGRGERPPGATGQPPSAPSGVKTQVRAMAPSLTSQAEAQAANQALIRSDPARGGGPRAVGARRVP
SRLPREAPEPRPGRRMFGISVSQGAQGAARAALGGYSQAYGTVCRSALGRLPLLPXXPRA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9010_a10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_177922

ORF Size: 1650 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_177922.1, NM_177922.2, NP_808590.1

RefSeq Size: 1961 bp

RefSeq ORF: 1650 bp

Locus ID: 332110

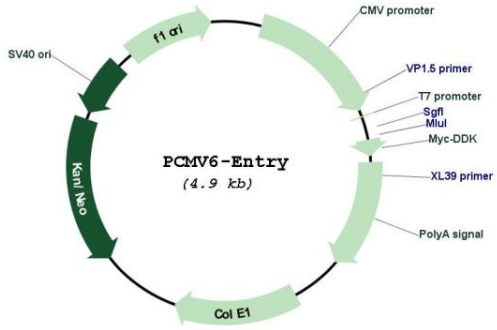
UniProt ID: Q80Y86

Cytogenetics: 15 D3

MW: 61.1 kDa

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 (By similarity) (PubMed:25823377). 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. Regulates primary cilium formation and the localization of ciliary proteins involved in cilium structure, transport, and signaling. Prevents the relocation of the sugar-adding enzymes from the Golgi to the endoplasmic reticulum, thereby restricting the production of sugar-coated proteins. Upon amino-acid starvation, mediates transitional endoplasmic reticulum site disassembly and inhibition of secretion. Binds to chromatin leading to MAPK15 activation and interaction with PCNA, that which protects genomic integrity by inhibiting MDM2-mediated degradation of PCNA. Regulates DA transporter (DAT) activity and protein expression via activation of RhoA. 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 (By similarity). Also functions in a kinase activity-independent manner as a negative regulator of growth (By similarity). Phosphorylates in vitro FOS and MBP (By similarity). During oocyte maturation, plays a key role in the microtubule organization and meiotic cell cycle progression in oocytes, fertilized eggs, and early embryos (PubMed:23351492). Interacts with ESRRA promoting its re-localization from the nucleus to the cytoplasm and then prevents its transcriptional activity (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR208733