

Product datasheet for **MG208733**

Mapk15 (NM_177922) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mapk15 (NM_177922) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mapk15
Synonyms:	BC048082
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208733 representing NM_177922
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTGTGCTGCCGAGGTGGACCGTCATGTAGCCAGAGATACCTGATCAAGCGGAGGCTTGGGAAGGGG
 CCTATGGCATTGTGTGGAAGCCATGGACCGGAGGACTGGCGAGTTGTGGCCATCAAGAAAATCTTTGA
 TGCCCTTAGGGACCAGATAGATGCTCAGAGGACCTCCCGTGAGATTATGCTTCTCAAGGAGTTGGAGGC
 CATCCCAACATCATCCGCTGCTTGATGTAATCCAGCGAAGAATGACAGGGATATTTACCTGGTGTGTTG
 AGTCCATGGACACCGACCTGAATGCAGTCATCCAGAAGGGCAGACTACTGAAGGACATCCACAAGCGGTG
 CATCTTTTACCAGCTCCTGAGAGCCACCAAGTTTATCCATTAGGGCGCGTCATCCATCGGGATCAGAAG
 CCAGCCAATGTTCTACTGGATTCTGCTTCCCGGGTAAACTCTGTGACTTTGGCTGGCACGCTCCCTCG
 GTGACCTCCCTGAGGGGCTGGGGTCAAGCCCTGACAGAGTATGTGGCCACACGCTGGTACCGAGCTCC
 AGAGGTGCTTCTGTCTCCCGATGGTATACCCCTGGGGTGGACATGTGGAGCCTGGGCTGCATATTAGGA
 GAGATGCTTCGAGGGCAGCCACTGTTCCCGGGACATCTACTTTCCACCAGCTGGAGCTGATCCTGAAGA
 CCATCCCATTGCCTTCCATGGAGGAGCTCCAGGACCTTGCTCAGACTACAGTGCTTTGATTCTGCAGAA
 TCTTGGGTCCAGGCCACAGCAGACGCTGGACGCCCTCCTGCCGCCAGACACCCCCCAGAAGCCCTGGAC
 CTCCTCAAGCGACTCTTGGCGTTTGTCCGGACAAGCGCCTTAGTGACAGCAGGCGCTGCAACACCCCT
 ACGTGCAGAGATTCCATTGCCCGACCGGAGTGGGCACGGGAGTCCGACGTGCGGCTCCCGGTGCACGA
 AGGAGACCAGCTCTGCACCAGAGTATCGAAACGCCTGTACCAGATTATCCTGGAGCAAAGTGGGAAC
 AGCCGACGCCCTCGAGAGGAAGGCTGGGGTGTGGCTCGCGGGCTGAGCTCAGGGCTCCCGGGCC
 GGACGCAATCGCTCAAGTCGGGAGTCTCCCGGAGTCCCGGGCAGGAGCGCCAGCGGAAAACGCGGACC
 CAAACCTCCGCGTAGCCCTGGTCAATGATCTGAGCATGTGGAAGTTCGACGGCAGAGCTCAGACCCCTG
 TTCCAACTCCGCGGCCAGGAAGGGGGAAAGGCCCCAGGGGCCACAGGGCAGCCACCCTCGGCACCCCT
 CAGGGGTGAAGACTCAAGTGAGGGCGATGGCGCCCTCCTGACTTACAGGCAGAGGCTCAGGCGGCCAA
 TCAGGCTCTGATCCGCAGTATCCGGCCGGGGCGGTGGGCCGAGGGCGGTGCGCGCGGACGGGTCCCT
 TCCCGCTGCCCGGGAGGCCCGGAACCCGACCCGCGCCGAAGGATGTTTGGCATCTCGGTCTCGCAGG
 GGGCCAGGGCGCAGCCAGAGCTGCGCTTGGCGGCTACTCCAGGCTACGGGACCGTGTGCCGCTCGGC
 GCTGGGCCGCTGCCCTGCTCCCGGACCGCTGCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG208733 representing NM_177922
 Red=Cloning site Green=Tags(s)

MCAAEEVDRHVAQRYLIKRRLLGKAYGIVWKAMDRRTGEVVAIKKIFDAFRDQIDAQRTFREIMLLKEFGG
 HPNIIRLLDVIPAKNDRDIYLVFESMDTLNAVIQKGRLLKDIHKRCIFYQLLRATKFIHSGRVIHRDQK
 PANVLLDSACRVKLCDFGLARSLGDLPEGPGGQALTEYVATRWYRAPEVLLSSRWYTPGVDMWSLGCILG
 EMLRGQPLFPGTSTFHQLELILKTIPLPSMEELQDLGSDYSALILQNLGSRPQQTLDALLPPDTPPEALD
 LLKRLAFAPDKRLSAEQALQHPYVQRFHCPDREWARESDVRLPVHEGDQLSAPEYRKRLYQIILEQSGN
 SRSPREEGLGVVASRAELRASPARTQSLKSGVLPQVPAETPARKRGPKPPRSPGHDEPHVEVRRQSSDPL
 FQLPPPGRGERPPGATGQPPSAPSGVKTQVRAMAPSLTSQAEQAANQALIRSDPARGGGPRAVGARRVP
 SRLPREAPEPRGRRMFGISVSQGAQAARAALGGYSQAYGTVCRSALGRLPLLPGPRA

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

ACCN:	NM_177922
ORF Size:	1647 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:	<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_177922.2 , NP_808590.1
RefSeq Size:	1961 bp
RefSeq ORF:	1650 bp
Locus ID:	332110
UniProt ID:	Q80Y86
Cytogenetics:	15 D3

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 through 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 H₂O₂ 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]