

## Product datasheet for **MG210109**

### Mapk8ip1 (BC072578) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mapk8ip1 (BC072578) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mapk8ip1
Synonyms:	JIP-1, IB1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG210109 representing BC072578  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCAGCTGGTACTGAAGATGGATTCGAGCCCAGACAATGACAGCTGGTTGGAGGATCAGTGGGAGCACT  
 GGCTCACCCATGACATCAGCCTGGAGGAGTTTGGAGATGAAGACCTTTCGGAGATCACTGACGAGTGTGG  
 CATCAGCCTGCAGTGCAAAGACACCCTGTCTCTCCGGCCCCCGCGCGCCGGGCTGCTGTCTGCGGGTAGC  
 AGCGGCAGCGCGGGGAGCCGGCTGCAGGCGGAGATGCTGCAGATGGACCTGATCGACGCGGCAGGTGACA  
 TTCCGGGCGCCGAGGACGACGAGGAGGAGGAGGACGACGAGCTCGCTGCCAACGACCAGGAGTGGGGCC  
 TCCCAAAGCGGAGTCCAACCAGGATCCGGCGCCTCGCAGCCAGGGCCAGGGCCCCGGGCACAGGCAGCGGA  
 GACACCTACCGACCCAAGAGGCCTACCACGCTCAACCTTTCCCGCAGGTGCCGGGTCTCAGGACACGC  
 TGAATAATAACTCTTTAGCAAAAAGCACAGTTGGCAGGACCGTGTGTCTCGATCATCTCCCTCTGAA  
 GACAGGAGAACAGACGCCTCCACATGAACACATCTGCCTGAGTGTGAGCTGCCACCCAGGGCAGTCTCT  
 GTTCCACCCAGGACCGCGGCACTTCCACCGACAGCCCTTGTCCGCGAAGTGCAGCCACCCAGATGGCAC  
 CTCCAAGCGGTCCCCCTGCCACTGCGCCTGGTGGCCGGGGCCACTCCCATCGAGACCGAATCCACTACCA  
 GGCAGATGTGCGGCTCGAGGCGACTGAGGAGATCTACCTGACCCAGTGCAGAGGCCCCAGACCCTGCA  
 GAACCCACCTCCACCTTCATGCCACCCAGGAGAGCCGGATGTCAGTTAGCTCCGATCCAGACCCTGCCG  
 CTTACTCTGTAAGTGGGGGGCGGCCACACCCCTCCATCAGTGAAGAGGATGAGGGCTTCGACTGCCTGTC  
 ATCCCCAGAGCGAGCTGAGCCACCAGGTGGAGGGTGGCGGGGAAGCCTCGGGGAGCCACCACCGCCTCCA  
 CGGGCCTCACTGAGCTCGACACCAGCGCACTGTCTACGACTCGGTCAAGTACACACTGGTGGTGGATG  
 AACATGCCAGCTTGGAGTTGGTGGCCTGCGGCCGTGCTTTGGAGATTACAGTGACGAAAGCGACTCTGC  
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 GCCCCTCAGCCCCGCGCTCCACCTGCCTCTCAGAGGACTCCACCCGGATGAGCCTGATGTCCACTTCT  
 CTAAGAAGTTTCTGAATGTCTTCATGAGTGGCCGCTCTCGTTCCTCCAGTGTGAGTCTTTGGGCTGTT  
 CTCCTGCGTCATCAATGGGGAGGAGCATGAGCAAACCCATCGGGCTATATTCAGGTTTGTGCCTCGGCAT  
 GAAGATGAACTTGGAGTGGAGTGGATGACCCCTGCTGGTGGAGCTGCAGGCAGAAGACTATTGGTATG  
 AGGCCTATAACATGCGCACCGGAGCCCGCGGGGTCTTCCCTGCCTACTATGCCATTGAGGTACCAAGGA  
 GCCTGAGCACATGGCAGCCCTTGCCAAAACAGCGACTGGATTGACCAGTTCGGGTGAAGTTCTGGGG  
 TCTGTCCAGGTTCTTATCACAAGGGCAATGATGTCCTCTGTGCTGCTATGCAAAAGATCGCCACCACC  
 GCCGGCTCACCGTGCACCTTAACCCGCCCTCCAGCTGTGCTCCTGAGATCAGTGTGAGGGGTGTCAAGAT  
 AGGCGTCAAAGCTGATGATGCTCTGGAGGCCAAGGGAAATAAATGTAGCCACTTCTTCCAGCTAAAGAAC  
 ATCTCTTTCTGTGGATACCATCCAAAGAATAACAAGTACTTTGGGTTTATCACTAAGCACCTGTGACC  
 ACCGGTTTGCCTGCCATGTCTTTGTGTCTGAAGATTCCACCAAAGCCCTGGCGGAGTCTGTGGGGCGTGC  
 ATTTACAGCAGTTCTACAAGCAGTTTGTGGAGTATACCTGTCTACAGAAGATATCTACTTGGAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG210109 representing BC072578  
 Red=Cloning site Green=Tags(s)

MQLVLKMDSSPDNDSWLEDQWEHWLTHDISLEEFEDLSEITDECGISLQCKDTLSLRPPRAGLLSAGS  
 SGSAGSRLQAEMLQMDLIDAAGDIPGAEDDEEEDEDELAQRPGVGPPEAKAESNQDPAPRSQGGPGTGSG  
 DTYRPKRPTTLNLFQVPRSQDTLNNNSLGGKHSWQDRVSRSSSPLKTGEQTPPEHICLSDELPPQGS  
 VPTQDRGTSTDSPCRRAATQMAPPSPGPATAPGGRGHSHRDRIHQADVRLATEEIIYLTPVQRPPDPA  
 EPTSTFMPPTESRMSVSDPDPAAYSVTAGRPHPSISEDEGFDCLSSPERAEPGGGWRGSLGEPPIPP  
 RASLSSDTSALSYDSVKYTLVVDEHAQLELVSLRPCFGDYSDSDSATVYDNCASASSPYESAIGEEYEE  
 APQPRPTCLSEDSTPDEPDVHFSKKFLNVFMSGRSRSSAESFGLFSCVINGEEHEQTHRAIFRFVPRH  
 EDELELEVDDPLLVELQAEDYWEAYNMRTGARGVFPAYYAEVTKPEPHMAALAKNSDWIDQFRVKFLG  
 SVQVPYHKGNLCAAMQKIATRRRLTVHFNPPSSCVLEISVRGVKIGVKADDALEAKGNKCSHFFQLKN  
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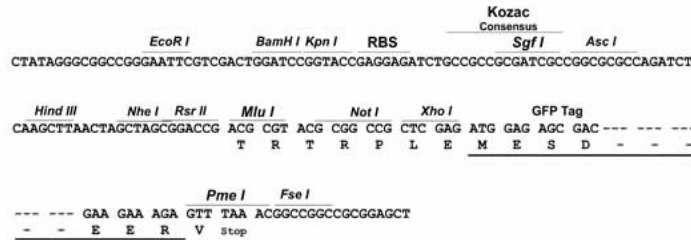
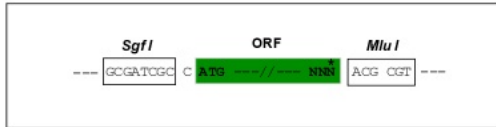
TRTRPLE - GFP Tag - V

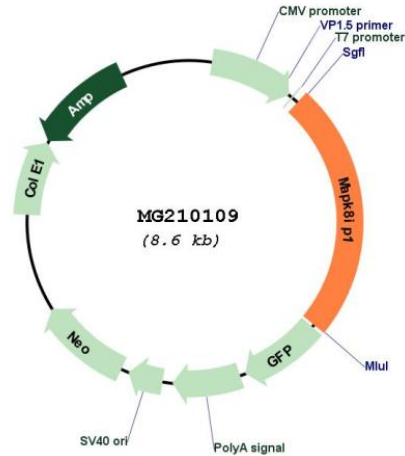
**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** BC072578

**ORF Size:** 2096 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:** [BC072578](#), [AAH72578](#)

**RefSeq Size:** 3138 bp

RefSeq ORF: 2096 bp

Locus ID: 19099

Cytogenetics: 2 E1

**Gene Summary:** The JNK-interacting protein (JIP) group of scaffold proteins selectively mediates JNK signaling by aggregating specific components of the MAPK cascade to form a functional JNK signaling module. Required for JNK activation in response to excitotoxic stress. Cytoplasmic MAPK8IP1 causes inhibition of JNK-regulated activity by retaining JNK in the cytoplasm and thus inhibiting the JNK phosphorylation of c-Jun. May also participate in ApoER2-specific reelin signaling. Directly, or indirectly, regulates GLUT2 gene expression and beta-cell function. Appears to have a role in cell signaling in mature and developing nerve terminals. May function as a regulator of vesicle transport, through interactions with the JNK-signaling components and motor proteins. Functions as an anti-apoptotic protein and whose level seems to influence the beta-cell death or survival response (By similarity). Acts as a scaffold protein that coordinates with SH3RF1 in organizing different components of the JNK pathway, including RAC1 or RAC2, MAP3K11/MLK3 or MAP3K7/TAK1, MAP2K7/MKK7, MAPK8/JNK1 and/or MAPK9/JNK2 into a functional multiprotein complex to ensure the effective activation of the JNK signaling pathway. Regulates the activation of MAPK8/JNK1 and differentiation of CD8(+) T-cells (PubMed:23963642).[UniProtKB/Swiss-Prot Function]