

Product datasheet for MC224579

Mapk8ip3 (NM_001163447) Mouse Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Mapk8ip3 (NM_001163447) Mouse Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Mapk8ip3 |
| Synonyms: | BB120594; D17Wsu15e; JIP-3; Jip3; JSAP1; JSAP1a; JSAP1b; JSAP1c; JSAP1d; mKIAA1066; Syd2 |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |
| Fully Sequenced ORF: | >MC224579 representing NM_001163447 Red=Cloning site Blue=ORF Orange=Stop codon |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATGGAGATCCAGATGGACGAGGGAGGAGGAGTGGTGGTGTACCAAGACGACTACTGCTCGGGCTCGG
TCATGTCCGAGCGTGTGTCCGGCCTGGCGGGCTCCATCTACCGAGTTCGAGCGCCTCATTCACTGCTA
TGACGAGGAGGTGGTCAAGGAGCTCATGCCGCTGGTGGTGAACGTGCTGGAGAACCTTGACTCGGTGCTG
AGCGAGAACCAGGAGCACGAGGTGGAGCTGGAGCTCCTACGCGAGGACAACGAGCAGCTGCACGCAAT
ACGAGCGCGAGAAGGCGCTGCGCAAACAGGCCGAGGAGAAATTCATCGAATTTGAAGATGCCTTGGAAACA
AGAGAAGAAAGAACTCCAGATCCAGGTAGAACATTATGAGTTTACAGACACGCCAGCTGGAGCTAAAGGCC
AAAACTATGCAGATCAGATTTCCCGACTGGAGGAACGAGAATCGGAGATGAAGAAGGAATACAATGCC
TGCACCAGCGGCACACAGAGATGATCCAGACCTATGTGGAACACATTGAAAGATCCAAGATGCAGCAAGT
TGGGGGTAGCGGCCAAACAGAAAGCAGCCTGCCGGGCGGAGGAAGGAGCGTCCCACCTCTCTGAATGTC
TTCCCCCTGGCTGATGGCATGGTACGTGCACAGATGGGGGCAAGCTCGTGCCTGCGGGGACCACCTGGC
ACCTGAGTGACCTCGGCCAGCTACAGTCCAGCTCCAGTACCAGTGTCCAATGATGAGATGCTGAGTCTGAGT
AGGCCAGTCTCAGCAGCTGCAACACCCAGTACCACAGGTACCAAGTCCAACACACCCAGTCCCTCCGTG
CCCTCAGCAGCAGTACGCCACTCAACGAGAGCCTACAGCCCCTGGGGACTATGTCAGTGTACAAAAGA
ACAACAAGCAGGCCGAGAGAAGCGCAATAGCCGTAACATGGAGGTCCAGGTACCCCAAGAGATGCGGAA
CGTCAGTATCGGCATGGGAGCAGTGCAGAGTGGTCCGATGTTCCAGGACATTATCGACTCCACCCAGAG
CTGGATGTGTCTCTGAAACCCGTCTGGAGCGCACAGGAAGCAGCCCAACCCAGGGAATTGTAACAAGAG
CTTTTGAATCAACACTGACTCCTTGTATCACGAACCTCCACGCGGGATCTGAGGTATCGGGGATGT
GGACGAGGAGCTGATCTCCTAGGGGAGTTTTTCAGTGCAGGATGATTTTTTTGGAATGGGCAAGAAGT
GGGAACCTGCTGCTGGAGAACTCACAGTCTTAGAGACAAAAATGCTTTAAATGATGAGTGAAGAATGACC
TCATTGCTAAGGTTGACCAACTGTCAGGAGAACAGGAGTCTGAAGGGTGAAGTGAAGAGTCAAGTCAAGGCA
AGCCAAAGTCAAGCTGGAGAACCGAATCAAGAGCTTGAAGAAGAACTGAAGAGAGTCAAGTCAAGGCA
GTAAGTCCCAGGCTGAGCCAGAGAAGAGGTGGAGGATGAAGCAGCTATCTCTGTACAGAATTGGACA



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AAATCCCATGGCCAGCGCCGACGCTTACACGGGTGGAGATGGCCGAGTGCTCATGGAACGCAACCA
 GTACAAGGAACGCCTCATGGAGCTGCAGGAGGCTGTGAGGTGGACTGAAATGATCAGAGCATCAAGGGAA
 CACCCATCTGTCCAGGAGAAGAAGAAGTCCACCATCTGGCAGTCTTTAGTCGCCCTTCAGCTCCTCAT
 CTAGCCCCCTCCGGCAAACGATCCTACCCATCTGTGAACATTCACCTACAAGTCACCCACTGCAGCTGG
 CTTTAGCCAGCGTCGCAGCCATGCTTTGTGCCAGATCTCAGCCGGCAGCAGGCCCTGGAGTTCTTCCCT
 GATGATGACTGCACCTCTTCTGCCGGCGGGAGCAGAAGCGGGAGCAGTACCGCCAGGTTCTGTAACACG
 TGCGCAATGATGACGGGAGGCTGCAGCCCTGTGGGTGGAGCCTGCCTGCCAAGTACAAGCAGCTGAGCCC
 CAATGGAGGCCAGGAAGACACCCGGATGAAAAATGTGCCTGTCCCTGTGTACTGCCGCCCTTGGTGGAG
 AAGGACCCTTCGACAAAGCTGTGGTGTGCTGCTGGTGTCAACCTGAGTGGGTGGAAGCCACATGAAGAGG
 ACTCTAGCAATGGACCAAGCCTGTACCAGGTCGAGACCCTTGACCTGTGACCGGGAAGGAGAAGGCGA
 ACCCAAGAGCACACCCATCACCTGAGAAGAAGAAGGCAAAGGAAACCCCTGAGGCAGATGCTACCTCC
 AGTCGGGTATGGATCCTCACCAGCACCTGACAACCAGCAAGGTGGTATCATTGATGCCAACAGCCAG
 GCACAATTGTGGATCAGTTCACAGTCTGCAATGCCACGTCCTGTGTATCTCCAGCATTCTCGGCCAG
 TGACAGTGACTATCCCCCTGGGAGATGTTCTAGACAGTGATGTGAACCCTGAAGATTCAGGTGCTGAT
 GGTGTGCTGGCTGGCATACCCCTGGTGGGTGTGCTACCCGCTGCAATGTTCCACGTAGCAACTGTTCT
 CACGAGGAGACACCCAGTACTGGACAAGGGGCAGGGGATGTGGCGACCACTGCCAATGGGAAGGTCAA
 CCCGTCCTCAATCCACAGAAGAAGCCACAGAAGCCACGGAGGTGCCAGACCCTGGTCCCAGCGAGTCAGAA
 GCAACGACAGTCCGGCCCGGCCCTCAGAGAGCATGTCTTTACTGACCCAGCACCCACCCATCCTCCA
 GCACCCAGCCTGCCAGTGAATGGGTGAGAGTCCAATGGCACCATTGTACAGCCTCAGGTGGAGCCAG
 TGGGGAACCTCAACAACAACAGTAGCGCTGCACCCACTATGTGGTAGGAGCCAGAAATGGCTGGCTC
 TATGTGCATTAGCGGTAGCCAAGTGAAGAAGTGTCTGCACTCCATCAAGCTAAAAGACTCTGTGCTGA
 GCCTGGTGCATGTCAAAGGCCGAGTGTGGTAGCTCTTGACAGTGGGACCCTGGCTATCTTCCATCGTGG
 AGAGGATGGCCAGTGGGACCTGAGCAACTACCACCTAATGGACCTGGGCCACCCACCACTCCATCCGC
 TGCAATGGCTGTTGTGAATGACCGAGTTTGGTGTGGCTACAAGAACAAGGTGCATGTTATCCAGCCCAAGA
 CAATGCAGATTGAGAAATCATTTGATGCCACCCAAGGCGGAAAGCCAGGTACGTGAGTGGCCTGGAT
 CGGTGATGGAGTGTGGTCTCTATTGCTTGGATTCTACCCTTCGGCTCTACCATGCTCACACCCACCAG
 CACCTGCAGGATGTGGACATTGAGCCCTATGTTAGCAAGATGCTAGGAACCGGCAAGCTGGGCTTCTCCT
 TCGTGGCATCACAGCCTTACTCATTGCAGGCAACCGTCTGTGGTGGGCACTGGCAATGGGTTGTCAT
 CTCCATCCCTTGACTGAGACTGTGGTCTGCATCGAGGCCAGCTCCTAGGGCTCCGAGCCAACAAGACA
 TCCCCAACATCTGGGAGGGGACCCGCCAGGGGCATCATCCATGTGTATGGGACGACAGCAGTGACA
 AGGCCCCAGTAGTTTCATCCCCTACTGCTCCATGGCACAGGCTCAGCTTTGCTTCCATGGCACCGTGA
 TGCTGTCAAATCTTTGTCTCTGTGCCAGGAAATGTGCTGGCCACTCTCAATGGCAGTGTCTAGACAGC
 CCATCAGAGGGCCCTGGGCTGTGCACCCGCTGCAGATGCTGAGGGCCAGAAGTTGAAGAATGACTGG
 TGCTGAGTGGTGGTGAAGGTTACATTGACTTCCGTATCGGAGACGGAGAGGATGATGAAACTGAGGAATG
 TGCCGGGGACGTGAACCAGACAAAGCCCTGTTGTCCAAGGCTGAGCGCAGCCACATCATCGTGTGGCAG
 GTGTCCTACACCCTGAGTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001163447
- Insert Size:** 4011 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:

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_001163447.1](#), [NP_001156919.1](#)

RefSeq Size: 5576 bp

RefSeq ORF: 4011 bp

Locus ID: 30957

UniProt ID: [Q9ESN9](#)

Cytogenetics: 17 12.53 cM

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. May function as a regulator of vesicle transport, through interactions with the JNK-signaling components and motor proteins (PubMed:10523642, PubMed:10629060). Promotes neuronal axon elongation in a kinesin- and JNK-dependent manner (PubMed:23576431, PubMed:25944905, PubMed:28259553). Activates cofilin at axon tips via local activation of JNK, thereby regulating filopodial dynamics and enhancing axon elongation (PubMed:23576431, PubMed:25944905, PubMed:28259553). Its binding to kinesin heavy chains (KHC), promotes kinesin-1 motility along microtubules and is essential for axon elongation and regeneration (PubMed:23576431, PubMed:25944905, PubMed:28259553). Regulates cortical neuronal migration by mediating NTRK2/TRKB anterograde axonal transport during brain development (PubMed:23576431, PubMed:25944905, PubMed:28259553). Acts as an adapter that bridges the interaction between NTRK2/TRKB and KLC1 and drives NTRK2/TRKB axonal but not dendritic anterograde transport, which is essential for subsequent BDNF-triggered signaling and filopodia formation (PubMed:23576431, PubMed:25944905, PubMed:28259553).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 5' coding region compared to variant 1. This results in a shorter protein (isoform b) compared to isoform a.

Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.