

## Product datasheet for **MC224282**

### Mapk8ip3 (NM\_013931) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mapk8ip3 (NM_013931) 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:	>MC224282 representing NM_013931 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGATGGAGATCCAGATGGACGAGGGAGGAGGAGTGGTGGTGTACCAAGACGACTACTGCTCGGGCTCGG  
TCATGTCCGAGCGTGTGTCCGGCCTGGCGGGCTCCATCTACCGCAGTTCGAGCGCCTCATTCACTGCTA  
TGACGAGGAGGTGGTCAAGGAGCTCATGCCGCTGGTGGTGAACGTGCTGGAGAACCTTGACTCGGTGCTG  
AGCGAGAACCAGGAGCACGAGGTGGAGCTGGAGCTCCTACGCGAGGACAACGAGCAGCTGCCTCACGCAAT  
ACGAGCGCGAGAAGGCGCTGCGCAAACAGGCCGAGGAGAAATTCATCGAATTTGAAGATGCCTTGGAACA  
AGAGAAGAAAGAACTCCAGATCCAGGTAGAACATTATGAGTTTCAGACACGCCAGCTGGAGCTAAAGGCC  
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TGCACCAGCGGCACACAGAGATGATCCAGACCTATGTGGAACACATTGAAAGATCCAAGATGCAGCAAGT  
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GTCTTCCCTGGCTGATGGCATGGTACGTGCACAGATGGGGGCAAGCTCGTGCCTCGGGGGACCACT  
GGCACCTGAGTGACCTCGCCAGCTACAGTCCAGTCCAGTACCAGTACCAGTACCAAGTCCAACACACCCACGTCCTCC  
GTGCCCTCAGCAGCAGTACGCCACTCAACGAGAGCCTACAGCCCTGGGGGACTATGTCAGTGTACAA  
AGAACAACAAGCAGGCCGAGAGAAGCGCAATAGCCGTAACATGGAGGTCCAGGTCAACCAAGAGATGCG  
GAACGTAGTATCGGCATGGGCAGCAGTACGAGTGGTCCGATGTTCCAGGACATTATCGACTCCACCCCA  
GAGCTGGATGTGTCTGAAACCCGTCTGGAGCGCACAGGAAGCAGCCCAACCCAGGGAATTGTAACA  
AAGCTTTTGAATCAACTGACTCCTTGTATCACGAACCTCCACGGCGGGATCTGAGGTATCGGGGA  
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GTGGGAAACCTGCTGCTGGAGAACTCACAGCTTCTAGAGCAAAAAATGCTTTAAATGTAGTGAAGAAATG  
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GCAAGCCAAAGTCAAGCTGGAGAACCGAATCAAAGAGCTTGAAGAAGAACTGAAGAGAGTCAAGTCAAG  
GCAGTAACTGCCCGCCTGAGCCAGAGAAGAGGTGGAGGATGTAAGCAGCTATCTGTACAGAATTGG



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ACAAATCCCCATGGCCAGCGCCGACGCTTCACACGGGTGGAGATGGCCGAGTGCTCATGGAACGCAA  
 CCAGTACAAGGAACGCCTCATGGAGCTGCAGGAGGCTGTGAGGTGGACTGAAATGATCAGAGCATCAAGG  
 GAACCCCATCTGTCCAGGAGAAGAAGAAGTCCACCATCTGGCAGTTCTTTAGTCGCCTCTTCAGCTCCT  
 CATCTAGCCCCCTCCGGCCAAACGATCCTACCCATCTGTGAACATTCACATAAGTCAACCACTGCAGC  
 TGGCTTTAGCCAGCGTCGAGCCATGCTTTGTGCCAGATCTCAGCCGGCAGCAGGCCCTGGAGTTCTTC  
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 CCCAATGGAGGCCAGGAAGACACCCGGATGAAAAATGTCCCTGTCCCTGTACTGCCGCCTCTGGTG  
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 TCCAGTCGGGTATGGATCCTCACCAGCACCTGACAACCAGCAAGGTGGTATCATTGATGCCAACCAGC  
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 CAACCCGTCCCAATCCACAGAAGAAGCCACAGAAGCCACGGAGGTGCCAGACCCTGGTCCCAGCGAGTCA  
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 TGAGCCTGGTGCATGTCAAAGCCGAGTGTGGTAGCTCTTGACAGATGGGACCCTGGCTATCTTCCATCG  
 TGGAGGATGGCCAGTGGGACCTGAGCAACTACCACCTAATGGACCTGGGCCACCCACACCACCCATC  
 CGTGTCATGGCTGTTGTGAATGACCGAGTTTGGTGTGGCTACAAGAACAAGGTGCATGTTATCCAGCCCA  
 AGACAATGCAGATTGAGAAATCATTGATGCCACCCAAGGCGGAAAGCCAGGTACGTCAGCTGGCCTG  
 GATCGGTGATGGAGTGTGGTCTCTATTGCTGGATTCTACCCTTCGGCTCTACCATGCTCACACCCAC  
 CAGCACCTGCAGGATGTGGACATTGAGCCCTATGTTAGCAAGATGCTAGGAACCGGCAAGCTGGGCTTCT  
 CCTTCGTGCGCATCACAGCCTTACTCATTGCAGGCAACCGTCTGTGGTGGGCACTGGCAATGGGGTTGT  
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 ACATCCCCAACATCTGGGAGGGGACCCGCCAGGGGCATCATCCATGTGTATGGGACGACAGCAGTG  
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 TGATGCTGTCAAATCTTTGTCTCTGTGCCAGGAAATGTGCTGGCACTCTCAATGGCAGTGTGCTAGAC  
 AGCCCATCAGAGGGCCCTGGGCCTGCTGCACCCGCTGCAGATGCTGAGGGCCAGAAGTTGAAGAATGCAC  
 TGGTGTGAGTGGTGGTGAAGGTTACATTGACTTCCGATCGGAGACGGAGAGGATGATGAAACTGAGGA  
 ATGTGCCGGGGACGTGAACCAGACAAAGCCCTCGTTGTCCAAGGCTGAGCGCAGCCACATCATCGTGTGG  
 CAGGTGTCCTACACCCCTGAGTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_013931
- Insert Size:** 4014 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\\_013931.4](#), [NP\\_038959.2](#)

**RefSeq Size:** 5596 bp

**RefSeq ORF:** 4014 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 (1) represents the longest transcript and encodes the longest isoform (a). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.