

## Product datasheet for MR211934

### Mapk8ip3 (NM\_001163447) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mapk8ip3 (NM_001163447) Mouse Tagged ORF Clone
Tag:	Myc-DDK
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
ORF Nucleotide Sequence:	>MR211934 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGATGGAGATCCAGATGGACGAGGGAGGAGGAGTGGTGGTGTACCAAGACGACTACTGCTCGGGCTCGG  
TCATGTCCGAGCGTGTGTCCGGCCTGGCGGGCTCCATCTACCGCAGTTCGAGCGCCTCATTCACTGCTA  
TGACGAGGAGGTGGTCAAGGAGCTCATGCCGCTGGTGGTGAACGTGCTGGAGAACCTTGACTCGGTGCTG  
AGCGAGAACCAGGAGCAGGAGGTGGAGCTGGAGCTCCTACGCGAGGACAACGAGCAGCTGCACGCAAT  
ACGAGCGCGAGAAGGCGCTGCGCAAACAGGCCGAGGAGAAATTCATCGAATTTGAAGATGCCTTGGAAACA  
AGAGAAGAAAGAACTCCAGATCCAGGTAGAACATTATGAGTTTCAGACACGCCAGCTGGAGCTAAAGGCC  
AAAAACTATGCAGATCAGATTTCCCGACTGGAGGAACGAGAATCGGAGATGAAGAAGGAATACAATGCC  
TGCACCAGCGGCACACAGAGATGATCCAGACCTATGTGGAACACATTGAAAGATCCAAGATGCAGCAAGT  
TGGGGGTAGCGGCCAAACAGAAAGCAGCCTGCCCGGGCGGAGGAAGGAGCGTCCCACCTCTCTGAATGTC  
TTCCCCCTGGCTGATGGCATGGTACGTGCACAGATGGGGGCAAGCTCGTGCCTGCGGGGACCACCTGGC  
ACCTGAGTGACCTCGGCCAGCTACAGTCCAGCTCCAGTACCAGTGTCCAATGATGAGATGCTGAGTC  
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CCCTCAGCAGCAGTACGCCACTCAACGAGAGCCTACAGCCCCTGGGGACTATGTCAGTGTACAAAAGA  
ACAACAAGCAGGCCCGAGAGAAGCGCAATAGCCGTAACATGGAGGTCCAGGTACCCCAAGAGATGCGGAA  
CGTCAGTATCGGCATGGGCAGCAGTGACGAGTGGTCCGATGTTCCAGGACATTATCGACTCCACCCAGAG  
CTGGATGTGTCTCTGAAACCCGTCTGGAGCGCACAGGAAGCAGCCCAACCCAGGGAATTGTAACAAGAG  
CTTTTGAATCAACACTGACTCCTTGTATCACGAACTCTCCACGGCGGGATCTGAGGTATCGGGGATGT  
GGACGAGGAGCTGATCTCCTAGGGGAGTTTTTCAGTGCAGGATGATTTTTTTGGAATGGCAAAGAAGTG  
GGGAACCTGCTGCTGGAGAACTCACAGTCTTAGAGACAAAAATGCTTTAAATGATGAGTGAAGAATGACC  
TCATTGCTAAGGTTGACCAACTGTCAGGAGAACAGGAGTCTGAAGGGTGAAGGAGCTGGAAGCAGCCAAGCA  
AGCCAAAGTCAAGCTGGAGAACCGAATCAAGAGCTTGAAGAAGAACTGAAGAGAGTCAAGTCAGAGGCA  
GTAAGTCCCCTGAGCCAGAGAAGAGGTGGAGGATGAAGCAGCTATCTCTGTACAGAATTGGACA



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Protein Sequence:

>MR211934 protein sequence  
 Red=Cloning site Green=Tags(s)

MMEIQMDEGGGVVYQDDYCSGSVMSERVSLAGSIYREFERLIHCYDEEVVKELMPLVNVLENLDSVL  
 SENQEHEVELELLREDNEQLLTQYEREKALRKQAEKFI EFEDALEQEKKELQIQVEHYEFQTRQLELKA  
 KNYADQISRLEERESEMKEYNALHQRHTEMIQTYVEHIERSKMQQVGGSGQTESSLPGRRKERPTSLNV  
 FPLADGMVRAQMGGKLVPAGDHWHLSDLGQLQSSSSYQCPNDEMSESGQSSAAATPSTTGKSNPTSSV  
 PSAAVTPLNESLQPLGDYVSVTKNNKQAREKRNRSRNMEVQVTQEMRNVSIGMSSDEWSDVDQIIDSTPE  
 LDVCPETRLERTGSSPTQGI VNKAFGINTDSL YHELSTAGSEVIGDVDEGADLLGEFSVRDDFFGMGKEV  
 GNLLLENSQLLETKNALNVVKNDLIAKVDQLSGEQEVLKGELEAAKQAKVKLENRIKELEELKRVKSEA  
 VTARREPREEVDVSSYLCTELDKIPMAQRRRFTRVEMARVLMERNQYKERLMELQEA VRWTEMIRASRE  
 HPSVQEKKKSTIWQFFSRLFSSSSSPPAKRSYPSVNIHYKSPTAAGFSQRRSHALCQISAGSRPLEFFP  
 DDDCTSSARREQKREYRQVREHVRNDDGRLQACGWSLPAKYKQLSPNGGQEDTRMKNVPVVPYCRPLVE  
 KDPSTKLWCAAGVNL SGWKPHEEDSSNGPKVPVGRDPL TCDREGEPEKSTHPSPEKKKAKETPEADATS  
 SRVWILTSTLTTSKVVIIDANQP GTI V DQFTVCNAHVLCISSIPAASDSDYPPGEMFLDSDVNPEDSGAD  
 GVLAGITLVGCATRCNVPRSNCSRRGDT PVL DKGQGDVATTANGKVNPSQSTEEATEATEVPDPGPSESE  
 ATTVRPGPLTEHVFTDPAPTSSSTQPAENGSENGTI VQPQVEPSGELSTTTSSAAPT MWLGAQNGWL  
 YVHSAVANWKKCLHSIKLKDSVLSLVHVKGRVLVALADGTLAIFHRGEDGQWDL SNYHLMDLGHPHHSIR  
 CMVVNDRVWCGYKNKVHVIQPKTMQIEKSFDAHPRRESQVRQLAWIGDGVVWSIRLDSTLRLYHAHTHQ  
 HLQDVDIEPYVSKMLGTGKLGFSFVRITALLIAGNRLWVGTGNGVVISIPLTETVVLHRGQLLGLRANKT  
 SPTSGEGTRPGGIIHVYGDSSDKAASSFIPYCSMAQAQLCFHGHRDAVKFFVSPVGNL ATLN GSVLDS  
 PSEGPAPAADAEGQKLKNALVLSGGEGYIDFRIGDGEDDETEECAGDVNQTKPSLSKAERSHII VWQ  
 VSYTPE

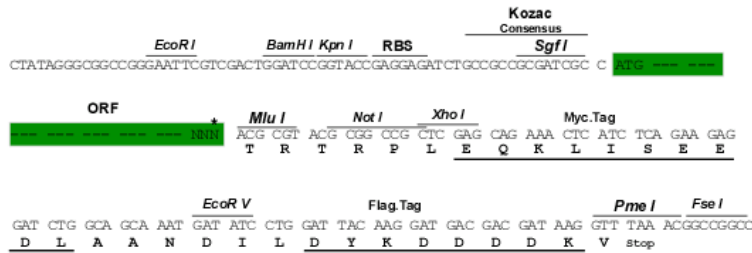
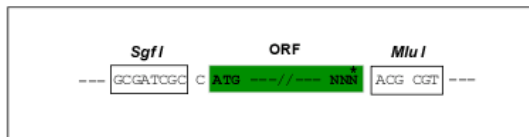
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

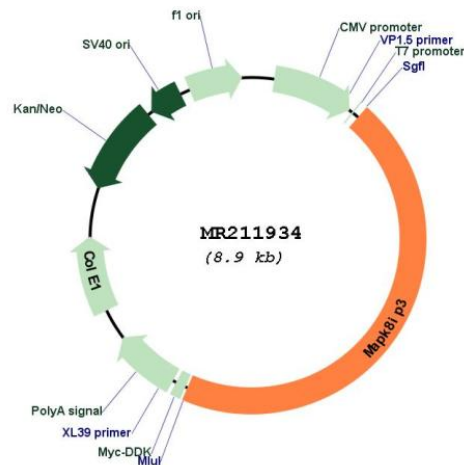
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**Plasmid Map:**


**ACCN:** NM\_001163447

**ORF Size:** 4008 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 Size:** 5576 bp

**RefSeq ORF:** 4011 bp

**Locus ID:** 30957

**UniProt ID:** [Q9ESN9](#)

**Cytogenetics:** 17 12.53 cM

**MW:** 147.5 kDa

**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]