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Product datasheet for MR223090

Mapk8ip3 (NM_001163453) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mapk8ip3 (NM_001163453) 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:

>MR223090 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATGGAGATCCAGATGGACGAGGGAGGAGGAGTGGTGGTGTACCAAGACGACTACTGCTCGGGCTCGG
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GTCTTCCCCCTGGCTGATGGCATGTGTCCAAATGATGAGATGTCTGAGTCAGGCCAGTCCTCAGCAGCTG
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GAGATGGCCCGAGTGCTCATGGAACGCAACCAGTACAAGGAACGCCTCATGGAGCTGCAGGAGGCTGTGA

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GGTGGACTGAAATGATCAGAGCATCAAGGGAACACCCATCTGTCCAGGAGAAGAAGAAGTCCACCATCTG
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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Protein Sequence:

>MR223090 protein sequence
Red=Cloning site Green=Tags(s)

MMEIQMDEGGGVVVYQDDYCSGSVMSERVSGLAGSIYREFERLIHCYDEEVVKELMPLVVNVLENLDSVL
SENQEHEVELELLREDNEQLLTQYEREKALRKQAEEKFIEFEDALEQEKKELQIQVEHYEFQTRQLELKA
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VFPLADGMCPNDEMSESGQSSAAATPSTTGTKSNTPTSSVPSAAVTPLNESLQPLGDYVSVTKNNKQARE
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RESQVRQLAWIGDGVWVSIRLDSTLRLYHAHTHQHLQDVDIEPYVSKMLGTGKLGFSFVRITALLIAGNR
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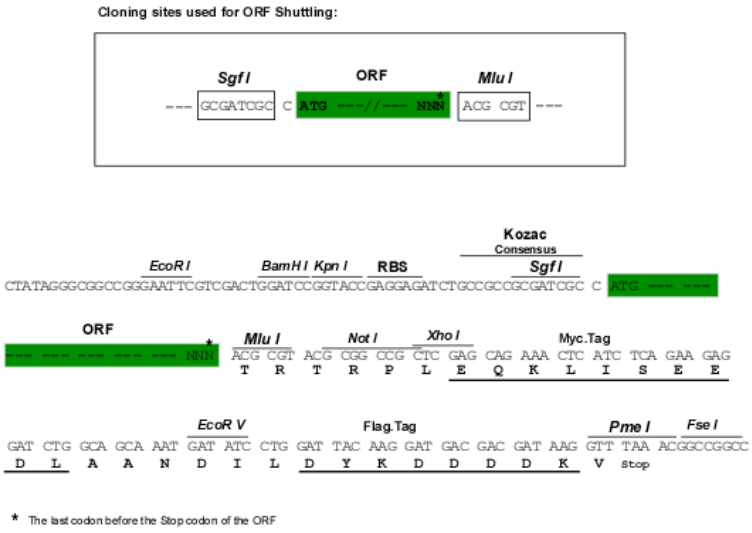
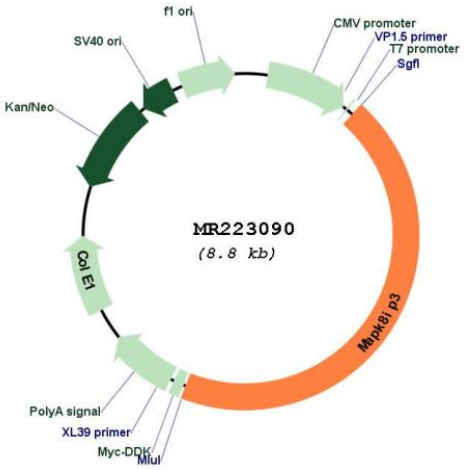
Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001163453
ORF Size:	3900 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:	NM_001163453.1, NP_001156925.1
RefSeq Size:	5468 bp
RefSeq ORF:	3903 bp
Locus ID:	30957
Cytogenetics:	17 12.53 cM
MW:	143.4 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]