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Product datasheet for RN212444

Map3k7 (NM_001107920) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Map3k7 (NM_001107920) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Map3k7
Synonyms:	Tak1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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Fully Sequenced ORF:

>RN212444 representing NM_001107920
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCGACAGCATCCGCCGCCTCGTCCTCCTCCTCGTCTTCTGCCAGTGAGATGATCGAAGCGCCATCGC
AGGTCCTTAACTTCGAAGAGATCGACTACAAGGAGATCGAGGTGGAAGAGGTTGTTGGGAGAGGAGCTTT
TGGAGTGGTTTGCAAAGCTAAGTGGAGAGCAAAAGATGTTGCAATTAAACAGATTGAAAGTGAATCTGAG
AGGAAGGCTTTCATCGTGGAGCTCCGGCAGTTGTCCCGTGTGAACCATCCTAATATTGTAAAGTTGTATG
GAGCCTGCTTGAATCCAGTCTGTCTTGTGATGGAGTATGCTGAAGGAGGCTCGTTGTATAATGTGCTGCA
CGGTGCTGAACCATTGCCTTATTACACTGCTGCTCATGCCATGAGCTGGTGTCTACAGTGTTCCCAAGGA
GTGGCCTACCTGCACAGCATGCAGCCCAAAGCTCTCATTCATAGGGACCTCAAGCCTCCAAACTTGCTGC
TGGTTGCAGGAGGGACAGTTCTAAAAATCTGCGATTTTGGTACAGCTTGTGACATCCAGACACACATGAC
CAATAATAAAGGGAGTGCTGCTTGGATGGCACCCGAAGTGTTCGAAGGTAGCAATTACAGTGAAAAGTGT
GATGTCTTCAGCTGGGGTATTATCCTTTGGGAGGTGATAACACGCCGGAAACCCTTTGATGAGATCGGTG
GCCCAGCTTTCAGAATCATGTGGGCTGTTCATAATGGTACTCGACCACCACTGATCAAAAACTTGCCTAA
GCCCATTGAGAGCTTGATGACCCGCTGTTGGTCTAAGGACCCTTCTCAGCGCCCTTCAATGGAGGAAATT
GTGAAAATAATGACTCACTTGATGCGGTACTTTCCAGGAGCTGATGAGCCGTTACAGTACCCCTGTCAGT
ACTCTGATGAAGGGCAGAGCAACTCAGCCACCAGCACAGGCTCATTTATGGACATCGCTTCTACAAATAC
CAGTAATAAAAGTGACACAAATATGGAACAAGTCCCTGCCACAAACGACACTATTAAACGCTTGGAGTCA
AAACTGTTGAAAAACCAGGCAAAGCAACAGAGTGACTCTGGACGCCTGAGTTTGGGAGCCTCTCGAGGGA
GCAGTGTGGAGAGCTTGCCCCCGACTTCTGAGGGCAAGAGGATGAGTGCTGACATGTCTGAAATAGAAGC
GAGGATCGTGGCGACTACAGCCTATACCAAGCCTAAACGGGGCCACCGTAAAACCGCTTCATTTGGCAAC
ATTCTGGATGTCCCTGAGATCGTCATATCAGGCAACGGGCAACCAAGGCGTAGATCCATCCAAGACTTGA
CTGTTACTGGGACAGAACCTGGTCAGGTGAGCAGCAGGTCATCCAGCCCTAGTGTCAGAATGATCACTAC
CTCAGGACCAACCTCAGAGAAGCCAGCTCGCAGTCTTCCTTGGACCCCTGATGATTCCACAGATACCAAT
GGCTCGGATAACTCCATCCCAATGGCGTATCTTACACTGGATCACCAGCTGCAGCCTCTAGCACCATGCC
CAAACTCCAAAGAATCCATGGCAGTGTTCGAACAGCATTGTAAAATGGCACAGGAATATATGAAAGTTCA
AACCGAAATCGCATTGTTACTACAGAGGAAGCAAGAACTAGTTGCAGAATTGGACCAGGATGAAAAGGAC
CAGCAAAATACATCTCGCCTGGTACAGGAACATAAAAAGCTTTTAGACGAAAACAAAAGCCTTTCTACTT
ATTACCAGCAATGCAAAAAACAACTAGAGGTCATCAGAAGCCAGCAGCAGAAACGACAAGGCACTTCATG
A

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001107920

Insert Size: 1821 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_001107920.2, NP_001101390.2

RefSeq Size: 4540 bp

RefSeq ORF: 1821 bp

Locus ID: 313121

UniProt ID: P0C8E4

Cytogenetics: 5q21

Gene Summary: Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Mediates signal transduction of TRAF6, various cytokines including interleukin-1 (IL-1), transforming growth factor-beta (TGFB), TGFB-related factors like BMP2 and BMP4, toll-like receptors (TLR), tumor necrosis factor receptor CD40 and B-cell receptor (BCR). Ceramides are also able to activate MAP3K7/TAK1. Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade and the p38 MAPK signal transduction cascade through the phosphorylation and activation of several MAP kinase kinases like MAP2K1/MEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7. These MAP2Ks in turn activate p38 MAPKs, c-jun N-terminal kinases (JNKs) and I-kappa-B kinase complex (IKK). Both p38 MAPK and JNK pathways control the transcription factors activator protein-1 (AP-1), while nuclear factor-kappa B is activated by IKK. MAP3K7 activates also IKBKB and MAPK8/JNK1 in response to TRAF6 signaling and mediates BMP2-induced apoptosis. In osmotic stress signaling, plays a major role in the activation of MAPK8/JNK1, but not that of NF-kappa-B (By similarity). Promotes TRIM5 capsid-specific restriction activity (By similarity). [UniProtKB/Swiss-Prot Function]