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Product datasheet for RG204454

TAK1 (MAP3K7) (NM_003188) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TAK1 (MAP3K7) (NM_003188) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TAK1
Synonyms:	CSCF; FMD2; MEKK7; TAK1; TGF1a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>RG204454 representing NM_003188
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCTACAGCCTCTGCCGCCTCCTCCTCCTCGTCTTCGGCCGGTGAGATGATCGAAGCCCCTTCCC
AGGTCCTCAACTTTGAAGAGATCGACTACAAGGAGATCGAGGTGGAAGAGGTTGTTGGAAGAGGAGCCTT
TGGAGTTGTTTGCAAAGCTAAGTGGAGAGCAAAAGATGTTGCTATTAAACAAATAGAAAGTGAATCTGAG
AGGAAAGCGTTTATTGTAGAGCTTCGGCAGTTATCCCGTGTGAACCATCCTAATATTGTAAAGCTTTATG
GAGCCTGCTTGAATCCAGTGTGTCTTGTGATGGAATATGCTGAAGGGGGCTCTTTATATAATGTGCTGCA
TGGTGCTGAACCATTGCCATATTATACTGCTGCCCACGCAATGAGTTGGTGTTTACAGTGTTCCCAAGGA
GTGGCTTATCTTCACAGCATGCAACCCAAAGCGCTAATTCACAGGGACCTGAAACCACCAAACTTACTGC
TGGTTGCAGGGGGGACAGTTCTAAAAATTTGTGATTTTGGTACAGCCTGTGACATTCAGACACACATGAC
CAATAACAAGGGGAGTGCTGCTTGGATGGCACCTGAAGTTTTTGAAGGTAGTAATTACAGTGAAAAATGT
GACGTCTTCAGCTGGGGTATTATTCTTTGGGAAGTGATAACGCGTCGGAAACCCTTTGATGAGATTGGTG
GCCCAGCTTTCCGAATCATGTGGGCTGTTCATAATGGTACTCGACCACCACTGATAAAAAATTTACCTAA
GCCCATTGAGAGCCTGATGACTCGTTGTTGGTCTAAAGATCCTTCCCAGCGCCCTTCAATGGAGGAAATT
GTGAAAATAATGACTCACTTGATGCGGTACTTTCCAGGAGCAGATGAGCCATTACAGTATCCTTGTCAGT
ATTCAGATGAAGGACAGAGCAACTCTGCCACCAGTACAGGCTCATTCATGGACATTGCTTCTACAAATAC
GAGTAACAAAAGTGACACTAATATGGAGCAAGTTCCTGCCACAAATGATACTATTAAGCGCTTAGAATCA
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GCAGTGTGGAGAGCTTGCCCCCAACCTCTGAGGGCAAGAGGATGAGTGCTGACATGTCTGAAATAGAAGC
TAGGATCGCCGCAACCACAGGCAACGGACAGCCAAGACGTAGATCCATCCAAGACTTGACTGTAACTGGA
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CCTCAGAAAAGCCAACTCGAAGTCATCCATGGACCCCTGATGATTCCACAGATACCAATGGATCAGATAA
CTCCATCCCAATGGCTTATCTTACACTGGATCACCAACTACAGCCTCTAGCACCGTGCCCAAACTCCAAA
GAATCTATGGCAGTGTTTGAACAGCATTGTAAAATGGCACAAGAATATATGAAAGTTCAAACAGAAATTG
CATTGTTATTACAGAGAAAGCAAGAACTAGTTGCAGAACTGGACCAGGATGAAAAGGACCAGCAAAATAC
ATCTCGCCTGGTACAGGAACATAAAAAGCTTTTAGATGAAAACAAAAGCCTTTCTACTTACTACCAGCAA
TGCAAAAAACAACTAGAGGTCATCAGAAGTCAGCAGCAGAAACGACAAGGCACTTCA

ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

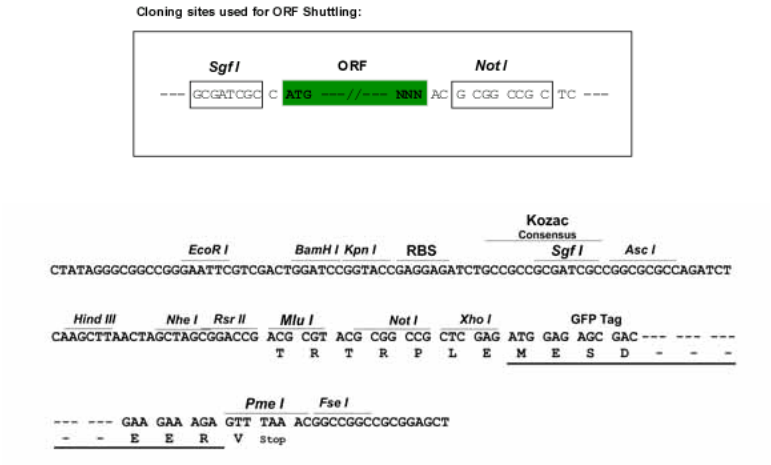
>RG204454 representing NM_003188
Red=Cloning site Green=Tags(s)

MSTASAASSSSSSSAGEMIEAPSQVLNFEEIDYKEIEVEEVVGRGAFGVVCKAKWRAKDVAIKQIESESE
RKAFIVELRQLSRVNHPNIVKLYGACLNPVCLVMEYAEGGSLYNVLHGAEPLPYYTAAHAMSWCLQCSQG
VAYLHSMQPKALIHRDLKPPNLLLVAGGTVLKICDFGTACDIQTHMTNNKGSAAWMAPEVFEGSNYSEKC
DVFSWGIILWEVITRRKPFDEIGGPAFRIMWAVHNGTRPPLIKNLPKPIESLMTRCWSKDPSQRPSMEEI
VKIMTHLMRYFPGADEPLQYPCQYSDEGQSNSATSTGSFMDIASTNTSNKSDTNMEQVPATNDTIKRLES
KLLKNQAKQQSESGRLSLGASRGSSVESLPPTSEGKRMSADMSEIEARIAATTGNGQPRRRSIQDLTVTG
TEPGQVSSRSSSPSVRMITTSGPTSEKPTRSHPWTPDDSTDTNGSDNSIPMAYLTLDHQLQPLAPCPNSK
ESMAVFEQHCKMAQEYMKVQTEIALLLQRKQELVAELDQDEKDQQNTSRLVQEHKKLLDENKSLSTYYQQ
CKKQLEVIRSQQQKRQGTS

TRPLE - GFP Tag - V

Restriction Sites: SgfI-NotI

Cloning Scheme:



ACCN: NM_003188

ORF Size: 1737 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

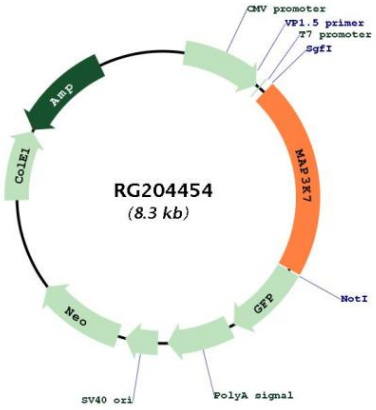
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_003188.4
RefSeq Size:	2912 bp
RefSeq ORF:	1740 bp
Locus ID:	6885
UniProt ID:	O43318
Cytogenetics:	6q15
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Adherens junction, MAPK signaling pathway, NOD-like receptor signaling pathway, RIG-I-like receptor signaling pathway, T cell receptor signaling pathway, Toll-like receptor signaling pathway, Wnt signaling pathway
Gene Summary:	The protein encoded by this gene is a member of the serine/threonine protein kinase family. This kinase mediates the signaling transduction induced by TGF beta and morphogenetic protein (BMP), and controls a variety of cell functions including transcription regulation and apoptosis. In response to IL-1, this protein forms a kinase complex including TRAF6, MAP3K7P1/TAB1 and MAP3K7P2/TAB2; this complex is required for the activation of nuclear factor kappa B. This kinase can also activate MAPK8/JNK, MAP2K4/MKK4, and thus plays a role in the cell response to environmental stresses. Four alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG204454