

Product datasheet for **SC323588**

TAK1 (MAP3K7) (NM_145331) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TAK1 (MAP3K7) (NM_145331) Human Untagged Clone
Tag:	Tag Free
Symbol:	TAK1
Synonyms:	CSCF; FMD2; MEKK7; TAK1; TGF1a
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_145331, the custom clone sequence may differ by one or more nucleotides

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ATGTCTACAGCCTCTGCCGCTCCTCCTCCTCGTCTTCGGCCGGTGAGATGATCGAAGCCCCTTCCC
AGGTCCTCAACTTTGAAGAGATCGACTACAAGGAGATCGAGGTGGAAGAGGTTGTTGGAAGAGGAGCCTT
TGGAGTTGTTTCAAAGCTAAGTGGAGAGCAAAAGATGTTGCTATTAACAAATAGAAAGTGAATCTGAG
AGGAAAGCGTTTATTGTAGAGCTTCGGCAGTTATCCCGTGTGAACCATCCTAATATTGTAAGCTTTATG
GAGCCTGCTTGAATCCAGTGTGCTTGTGATGGAATATGCTGAAGGGGGCTCTTTATATAATGTGCTGCA
TGGTGCTGAACCATTTGCCATATTACTGCTGCCACGCAATGAGTTGGTGTTCACAGTGTCCCAAGGA
GTGGCTTATCTTCACAGCATGCAACCCAAAGCGCTAATTCACAGGGACCTGAAACCACCAAACTTACTGC
TGGTTGCAGGGGGACAGTTCTAAAAATTTGTGATTTTGGTACAGCCTGTGACATTCAGACACACATGAC
CAATAACAAGGGGAGTGTGCTTGGATGGCACCTGAAGTTTTTGAAGGTAGTAATTACAGTGAAAAATGT
GACGTCTTCAGCTGGGTATTATCTTTGGGAAGTGATAACGCGTCGGAAACCCCTTGTATGAGATTGGTG
GCCAGCTTTCCGAATCATGTGGCTGTTTATAATGGTACTCGACCACCCTGATAAAAAATTTACCTAA
GCCATTGAGAGCCTGATGACTCGTTGTTGGTCTAAAGATCCTTCCAGCGCCCTTCAATGGAGGAAATT
GTGAAAAATATGACTCACTTGTGCGGTACTTTCCAGGAGCAGATGAGCCATTACAGTATCCTTGTGAGT
ATTCAGATGAAGGACAGAGCAACTCTGCCACCAGTACAGGCTCATTATGGACATTGCTTCTACAAATAC
GAGTAACAAAAGTGACACTAATATGGAGCAAGTTCCTGCCACAAATGATACTATTAAGCGCTTAGAATCA
AAATTGTTGAAAAATCAGGCAAAGCAACAGAGTGAATCTGGACGTTTAAAGCTTGGGAGCCTCCCGTGGGA
GCAGTGTGGAGAGCTTCCCCCAACCTCTGAGGGCAAGAGGATGAGTGTGACATGTCTGAAATAGAAGC
TAGGATCGCCGCAACACAGCCTATTCCAAGCCTAAACGGGGCCACCCTAAAAGCTTCCATTTGGCAAC
ATTCCTGGATGCTCCTGAGATCGTATATCAGGCAACGGACAGCCAAAGAGTATCCATCCAAGACTTGA
CTGTAACCTGGAACAGAACCTGGTCAGGTGAGCAGTAGGTATCCAGTCCCAGTGTGCAAGTGAATGACTAC
CTCAGGACCAACCTCAGAAAAGCAACTCGAAGTATCCATGGACCCCTGATGATTCCACAGATACCAAT
GGATCAGATAACTCCATCCCAATGGCTTATCTTACACTGGATCACCAACTACAGCCTCTAGCACCCTGCC
CAAACCTCAAAGAATCTATGGCAGTGTGTAACAGCATTGTAATAATGGCACAAGAATATATGAAAGTTCA
AACAGAAATTGCATTGTTATTACAGAGAAAAGCAAGAACTAGTTGCAGAACTGGACCAGGATGAAAAGGAC
CAGCAAAATACATCTCGCCTGGTACAGGAACATAAAAAGCTTTTAGATGAAAACAAAAGCCTTTCTACTT
ACTACCAGCAATGCAAAAAACAACCTAGAGGTATCAGAAGTCAGCAGCAGAAACGACAAGGCACTTCATG
A
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_145331 unedited

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ACCGCCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCATTAGGTG
ACACTATAGAATAACAAGTACTTGTCTTTTTGCAGCGCCGCGAATTCGGCACGAGGCCAGAGCCGGAC
ACGGCTGTGGCCGCTGCCTTACCCCGCCACGGATCGCCGGTAGTAGGACTGCGCGGCTCCAGGCTGA
GGGTCGGTCCGGAGGCGGGTGGGCGCGGGTCTCACCCGATTGTCGGGTGGCACCGTTCCCGGCCCCAC
CGGGCGCCGCGAGGGATCATGTCTACAGCCTCTGCCGCTCCTCCTCCTCGTCTTCGGCCGGTGGGG
ATGATCGAAGCCCCTTCCAGGTCCTCAACTTTGAAGAAGATCGACTACAAGGAGATCGAGGTGGGAAG
AAGGTTTGTGTTGGAAGAAGAGACCCTTTTGGAGTTGTGTTTGGCAAAGGCTTAAGTTGGAAGCAAAAAG
AAGTGTGCTATTATGAAAAATGAAAGTTGAACTCTGAAAGGAAACCGTTATTTGTAAGCTTCGGCAGT
TATCCCTGTGTGACCAATCCTAATTTGAAAAGCTTTAGGGAGCCGTGTTGATCCCAGTGTGCTTGTGAG
AGGAAAATGCGCTAAGGGGGCTTTTTAATATAGTGCAGCGGGGCGCTAACCCGTGCCATTATACTGTG
GCGCCACAGAGATGTGGTGTTCACGGTGTCCAGAGGAGTGTATATTCTACATGCGGCCCAAGCTATA
TTCAGAGCACTAACCCACACTGCTGTGGTGTGAGGACGACTCTAAATTTGTATTTGTATCCGTGAACAT
ATACACTACGACTATACAGAGATGCCTGTAGGTCCAGAATTGATGATATACATCGCACTTAGCATACT
CGAGTATTCTCGAGGATAGACGCGGAGGCAATCTGA
    
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Kinase Domain Sequence:	>SC323588 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation GAWCGAGTGGAGAGGTTGTGGAGAGGAGCCTTTGGAGTTGTTGCAAAGCTAAGTGGAGAGCAAAAGATG TTGCTATTATGCAAATAGAAAGTGAATCTGAGAGGAAAGCGTTTATTGTAGAGCTTCGGCAGTTATCCCG TGTGAACCATCCTAATATTGTAAGCTTTATGGAGCCTGCTTGAATCCAGTGTGTCTTGTGATGGAATAT GCTGAAGGGGGCTCTTTATATAATGTGCTGCATGGTGCTGAACCA
Restriction Sites:	Please inquire
ACCN:	NM_145331
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).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell, 2008 May p536-548.
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:	<ol style="list-style-type: none">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_145331.1 , NP_663304.1
RefSeq Size:	2850 bp
RefSeq ORF:	1821 bp
Locus ID:	6885
UniProt ID:	O43318
Cytogenetics:	6q15
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]

Transcript Variant: This variant (B) encodes the longest isoform (B). 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.