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Product datasheet for SC309825

TAOK1 (NM_020791) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TAOK1 (NM_020791) Human Untagged Clone
Tag:	Tag Free
Symbol:	TAOK1
Synonyms:	hKFC-B; hTAOK1; KFC-B; MAP3K16; MARKK; PSK-2; PSK2; TAO1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene sequence for NM_020791 edited
GCCACCATGCCATCAACTAACAGAGCAGGCAGCCTGAAGGACCCTGAAATTGCAGAGCTC
TTCTTCAAAGAAGATCCAGAGAAGCTCTTCACAGATCTCAGAGAAATTGGCCATGGAAGC
TTTGGAGCAGTGTATTTTGCACGAGATGTGCGTACCAATGAAGTGGTGGCCATCAAGAAA
ATGTCTTATAGTGGAAAGCAGTCTACTGAGAAATGGCAGGATATTATTAAGGAAGTCAAG
TTTCTACAAAGAATAAAACATCCCAACAGTATAGAATACAAAGGCTGTTATTTACGTGAA
CACACAGCATGGCTTGTAATGGAATATTGTTTAGGATCTGCTTCGGATTTACTAGAAGTT
CACAAAAAGCCATTACAAGAAGTGGAAATAGCAGCAATTACACATGGTGCTCTTCAGGGA
TTAGCCTACTTACATTCTCATACTATGATTCATAGAGATATCAAAGCAGGAAATATCCTT
CTGACAGAACCAGGCCAGGTGAAACTTGCTGACTTTGGCTCTGCTTCCATGGCATCACCT
GCCAATTCCTTTGTGGGAACGCCGTATTGGATGGCCCCAGAAGTAATTTTAGCCATGGAT
GAAGGACAATATGATGGCAAAGTAGATGTGTGGTCTCTTGGAATAACATGTATTGAACTA
GCGGAAAGGAAGCCTCCTTTATTTAATATGAATGCAATGAGTGCCTTATATCACATAGCC
CAAAATGAATCCCCTACACTACAGTCTAATGAATGGTCTGATTATTTTCGCAACTTTGTA
GATTCTTGCCTCCAGAAAATCCCTCAAGATCGACCTACATCAGAGGAACTTTTAAAGCAC
ATATTTGTTCTTCGGGAGCGCCCTGAAACCGTGTTAATAGATCTCATTCAGAGGACAAAG
GATGCAGTAAGAGAGCTGGACAATCTGCAGTATCGAAAGATGAAGAAACTCCTTTTCCAG
GAGGCACATAATGGACCAGCAGTAGAAGCACAGGAAGAAGAAGAGGAACAAGATCATGGT
GTTGGCCGGACAGGAACAGTTAATAGTGTTGGAAGTAATCAATCCATTCCCAGCATGTCC
ATCAGTGCCAGCAGCCAAAGCAGTAGTGTTAACAGTCTTCCAGATGTCTCAGATGACAAG
AGTGAGCTAGACATGATGGAGGGAGACCACACAGTGATGTCTAACAGTTCTGTTATCCAT
TTAAAACCAGAGGAAGAAAATTACAGAGAAGAGGGAGATCCTAGAACAAGAGCATCAGAT
CCACAATCTCCACCCCAAGTATCTCGTCACAAATCACACTATCGTAATCGAGAACACTTT
GCTACTATACGGACAGCATCACTGGTTACGAGGCAAATGCAAGAACATGAGCAGGACTCT
GAGCTTAGAGAACAAATGTCTGGCTATAAGCGAATGAGGCGACAACATCAAAAGCAACTG
ATGACTCTGGAAAACAAGCTAAAGGCTGAGATGGATGAACATCGCCTCAGATTAGACAAA
GATCTTGAAACTCAGCGTAACAATTTTGCTGCAGAAATGGAGAAACTTATCAAGAAACAC

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CAGGCTGCCATGGAGAAAGAGGCTAAAGTGATGTCCAATGAAGAGAAAAAATTTCAGCAA
CATATTCAGGCCCAACAGAAGAAAGAACTGAATAGTTTTCTCGAGTCCCAGAAAAGAGAG
TATAAACTTCGAAAAGAGCAGCTTAAAGAGGAGCTAAATGAAAACCAGAGTACCCCCAAA
AAAGAAAAACAGGAGTGGCTTTCAAAGCAGAAGGAGAATATACAGCATTTCCAAGCAGAA
GAAGAAGCTAACCTTCTTCGACGTCAAAGACAATACCTAGAGCTGGAATGCCGTCGCTTC
AAGAGAAGAATGTTACTTGGGCGTCATAACTTAGAGCAGGACCTTGTCAGGGAGGAGTTA
AACAAAAGACAGACTCAGAAGGACTTAGAGCATGCCATGCTACTCCGACAGCATGAATCT
ATGCAAGAACTGGAGTTCCGCCACCTCAACACAATTCAGAAGATGCGCTGTGAGTTGATC
AGATTACAGCATCAAACTGAGCTCACTAACCAGCTGGAATATAATAAGCGAAGAGAACGA
GAACTAAGACGAAAGCATGTCATGGAAGTTCGACAACAGCCTAAGAGTTTGAAGTCTAAA
GAACTCCAAATAAAAAAGCAGTTTCAGGATACCTGCAAAATCCAAACCAGACAGTACAAA
GCATTAAGAAATCACCTGCTGGAGACTACACCAAAGAGTGAGCACAAAGCTGTTCTGAAA
CGGCTCAAGGAGGAACAGACCCGGAAATTAGCTATCTTGGCTGAGCAGTATGATCACAGC
ATTAATGAAATGCTCTCCACACAAGCCCTGCGTTTGGATGAAGCACAGGAAGCAGAGTGC
CAGGTTTTGAAGATGCAGCTGCAGCAGGAACTGGAGCTGTTGAATGCGTATCAGAGCAAA
ATCAAGATGCAAGCTGAGGCACAACATGATCGAGAGCTTCGCGAGCTTGAACAGAGGGTC
TCCCTCCGGAGGGCACTCTTAGAACAAAAGATTGAAGAAGAGATGTTGGCTTTGCAGAAT
GAGCGCACAGAACGAATACGAAGCCTGTTGGAACGTCAAGCCAGAGAGATTGAAGCTTTT
GACTCTGAAAGCATGAGACTAGGTTTTAGTAATATGGTCCTTTCTAATCTCTCCCCTGAG
GCATTCAGCCACAGCTACCCGGGAGCTTCTGGTTGGTCACACAACCCTACTGGGGGTCCA
GGACCTCACTGGGGTCATCCCATGGGTGGCCCACCACAAGCTTGGGGCCATCCAATGCAA
GGTGGACCCCAGCCATGGGGTCACCCTTCAGGGCCAATGCAAGGGGTACCTCGAGGTAGC
AGTATGGGAGTCCGCAATAGCCCCCAGGCTCTGAGGCGGACAGCTTCTGGGGGACGGACA
GAGCAGGGCATGAGCAGAAGCACGAGTGTCACTTCACAAATATCCAATGGGTCACACATG
TCTTATACATAA

Restriction Sites: Please inquire

ACCN: NM_020791

Insert Size: 3200 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_020791.1, NP_065842.1
RefSeq Size:	4662 bp
RefSeq ORF:	3006 bp
Locus ID:	57551
UniProt ID:	Q7L7X3
Cytogenetics:	17q11.2
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	MAPK signaling pathway
Gene Summary:	Serine/threonine-protein kinase involved in various processes such as p38/MAPK14 stress-activated MAPK cascade, DNA damage response and regulation of cytoskeleton stability. Phosphorylates MAP2K3, MAP2K6 and MARK2. Acts as an activator of the p38/MAPK14 stress-activated MAPK cascade by mediating phosphorylation and subsequent activation of the upstream MAP2K3 and MAP2K6 kinases. Involved in G-protein coupled receptor signaling to p38/MAPK14. In response to DNA damage, involved in the G2/M transition DNA damage checkpoint by activating the p38/MAPK14 stress-activated MAPK cascade, probably by mediating phosphorylation of MAP2K3 and MAP2K6. Acts as a regulator of cytoskeleton stability by phosphorylating 'Thr-208' of MARK2, leading to activate MARK2 kinase activity and subsequent phosphorylation and detachment of MAPT/TAU from microtubules. Also acts as a regulator of apoptosis: regulates apoptotic morphological changes, including cell contraction, membrane blebbing and apoptotic bodies formation via activation of the MAPK8/JNK cascade.[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). 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.