OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MC224047

Taok2 (NM_001163775) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Taok2 (NM_001163775) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Taok2
Synonyms:	1110033K02Rik; B230344N16; MAP3K17; mKIAA0881; PSK; PSK1; TAO1; TAO2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC224047 representing NM_001163775 Red=Cloning site Blue=ORF Orange=Stop codon TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGCCAGCTGGGGGCCGGGCCGGGAGCCTGAAGGACCCTGATGTGGCTGAGCTCTTCTTCAAGGATGACC CTGAGAAGCTCTTCTCTGACCTCCGGGAGATCGGCCATGGCAGCTTTGGAGCAGTGTACTTTGCCCGGGA TGTCCGGAACAGTGAGGTGGTGGCCATCAAGAAGATGTCCTATAGTGGGAAGCAATCAAATGAGAAATGG CAGGATATCATCAAGGAAGTGCGGTTCTTACAGAAGCTACGGCATCCTAATACCATTCAGTACCGGGGCT GTTACCTGAGGGAGCACACAGCTTGGCTGGTGATGGAGTATTGCCTGGGCTCAGCTTCTGATCTTCTAGA AGTGCACAAGAAACCCCTGCAGGAGGTAGAGATTGCAGCTGTGACCCATGGGGCTCTTCAGGGCCTGGCA TATCTACACTCACACAACATGATCCATAGAGATGTGAAGGCTGGAAACATCTTGCTGTCAGAACCAGGCT TGGTAAAACTGGGGGACTTTGGCTCTGCGTCAATCATGGCACCTGCCAACTCTTTTGTGGGTACTCCATA CTGGATGGCTCCAGAGGTGATCCTAGCCATGGATGAGGGACAATATGATGGCAAAGTGGATGTCTGGTCC TTGGGGATAACCTGTATTGAGCTAGCGGAGCGGAAGCCACCACTGTTCAACATGAATGCAATGAGTGCCT TATACCACATTGCACAGAATGAATCTCCTGCTCTCCAGTCAGGACACTGGTCTGAGTACTTCCGGAATTT TGTTGACTCCTGTCTTCAGAAAATCCCTCAAGACAGACCAACCTCAGAGGTTCTTTTGAAGCACCGCTTT GTGCTCCGGGAGCGACCGCCCACAGTCATCATGGACCTAATCCAGAGGACCAAGGATGCTGTACGGGAAC TGGATAACCTGCAGTACCGAAAGATGAAGAAGATACTGTTCCAAGAGGCACCCAATGGCCCTGGTGCTGA GGCCCCAGAGGAAGAGGAGCTCACACCCTGTTCCCAGGAGGCAGAACCTTACACGCACCGTGCAGGGACA CTGACCAGTCTAGAGAGCAGCCATTCAGTGCCCAGCATGTCCATCAGCGCCTCCAGCCAGAGCAGCTCAG TCAACAGCCTAGCAGATGCCTCAGATAATGAAGAAGAGGAGGAAGAAGAAGAGGAAGAGGAGGAGGAGA GGAGGAAGAAGGCCCTGAATCCAGAGAGATGGCCATGATGCAGGAGGGGGAGCATACAGTCACTTCCCAC AGCTCCATCATCCACCGGCTGCCGGGCTCAGACAACCTATATGATGATCCCTACCAGCCAGAGATGACCC CAGGTCCACTCCAGCCACCTGCAGCCCCTCCCACCTCCACCTCCTCTTCTGCTCGCCGCAGAGCTTATTG CCGCAACCGAGACCACTTTGCTACCATTCGTACTGCCTCCCTGGTCAGCCGTCAGATCCAGGAGCATGAG CAGGACTCAGCCCTGCGAGAGCAGCTGAGTGGCTACAAGCGGATGCGACGTCAGCACCAGAAGCAACTGC

View online »

TGGCCCTGGAGTCCCGTCTGAGGGGTGAACGTGAGGAGCACAGTGGGCGGTTACAGCGGGAGCTCGAGGC
ACAGCGGGCTGGCTTTGGGACCGAGGCTGAGAAGCTGGCCCGGAGGCACCAGGCCATTGGTGAGAAGGAG
GCACGGGCTGCTCAGGCGGAGGAGCGGAAGTTCCAGCAGCACATCCTGGGGCAGCAGAAGAAGGAGCTGG
CCGCCCTGCTGGAGGCGCAGAAGCGAACCTACAAGCTGCGGAAGGAGCAGTTGAAAGAGGAGCTCCAGGA
GAACCCTAGCACACCCAAACGAGAGAAGGCTGAGTGGCTGTTGAGGCAAAAGGAGCAGTTGCAACAGTGC
CAGGCAGAAGAGGAAGCGGGGCTGCTGCGGAGGCAGCGCCAGTACTTTGAACTTCAGTGTCGCCAATACA
AGCGCAAGATGCTACTGGCTCGGCACAGCCTAGATCAGGACCTGCTTCGAGAGGACTTGAATAAGAAACA
GACACAGAAGGACTTGGAGTGTGCTCTGCTGTTACGGCAGCATGAGGCTACCCGAGAGCTGGAGCTAAGA
CAGCTCCAGGCTGTCCAGCGCACACGTGCTGAACTTACCCGCCTTCAGCACCAGACAGAACTAGGCAACC
AGCTGGAGTACAACAAGCGACGGGAGCAAGAATTACGGCAGAAGCACGCGGCCCAGGTTCGCCAGCAGCC
CAAGAGCCTCAAAGTACGTGCAGGCCAGCTACCCATGGGCCTCCCTGCTACTGGGGCTCTGGGACCACTC
AGCACAGGCACCCCTAGTGAAGAGCAGCCTTGCTCATCTGGCCAGGAGGCAATCCTGGACCAAAGGATGC
TGGGAGAGGAGGAGGAAGCAGTGCCAGAGAGAAGGATTCTGGGAAAGGAAGGGACTACCTTGGAGCCAGA
GGAGCAGAGGATTCTGGGGGAAGAAATGGGAACCTTTAGTTCCAGCCCACAAAAACATAGGAGTCTGGCT
AATGAGGAAGATTGGGATATATCTGAGGAGATGAAGGAGATTAGAGTCCCATCACTGGCATCCCAGGAGA
GAAATATTATTGGCCAGGAAGAGGCAGCGGCATGGAGTCTGTGGGAGAAGGAGGGTGGGAACCTTGTGGA
TGTGGAGTTCAAGCTTGGCTGGGTCCAGGGTCCAGTTCTGACTCCAGTCCCGGAGGAGGAAGAGGAGGAG
GAAGAAGAGGGAGGGGCTCCAATTGGAACCCACAGGGACCCTGGAGATGGCTGTCCTTCCCCAGATATCC
CCCCAGAGCCACCTCCATCACATCTGAGACAGTACCCTACTAGCCAGCTCCCTGGACTCCTGTCTCATGG
CCTCCTGGCTGGCCTATCCTTTGCAGTGGGGTCCTCCTCTGGCCTCCTGCCCCTACTCCTCCTGCTGCTA
CTCCCATTGCTGGCAGCCCAGGGTGGAGGTGGCTTGCAGGCAGCACTGCTGGCCCTTGAGGTAGGGCTAG
TGGGCCTGGGGGCCTCCTACCTGTTCCTTTGTACAGCTCTACACCTGCCCCCCGGTCTGTTCTTACTCCT
GGCTCAGGGTACTGCACTGTTGGCTGTCCTTAGCCTGAGCTGGCGCAGAGGCCTTATGGGTGTGCCTCTG
GGCCTTGGGGCTGCCTGGCTCCTAGCTTGGCCCAGCCTGGCTTTACCTCTGGCAGCTATGGCAGCTGGGG
GCAAATGGGTACGGCAACAAGGCCCCCAGATGCGTCGGGGTATCTCTCGACTCTGGTTGAGGATTTTGCT
ACGCCTGTCACCCATGGTCTTTCGGGCCCTACAGGGCTGTGGGGCTGTAGGAGACCGGGGGCTGTTTGCC
CTGTACCCTAAGACCAATAAGAATGGTTTCCGAAGTCGACTACCTGTCCCTTGGCCCCGTCAGGGAAATC
CTCGCACTACTCAACACCCCCTAGCTCAGTTAACAAGAGTTTGGGCTGTGTGCAAGGGCTGGAACTGGCG
CCTAGCACGGGCTAGCCACAGATTAGCTTCTTGCTTGCCCCCCTGGGCTGTTCATATACTAGCCAGCTGG
GGCCTGCTTAAGGGTGAACGGCCTAGTCGGATCCCTCGGCTGCTGCCACGCAGCCAACGCCGTCTTGGGC
TCTCTGCTTCCCGACAGCTACCACCAGGGACTGTAGCTGGGCGGAGATCTCAGACTCGCAGGACCCTGCC
TCCCTGGAGGTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001163775

Insert Size: 3723 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_001163775.1, NP_001157247.1
RefSeq Size:	5270 bp
RefSeq ORF:	3723 bp
Locus ID:	381921
UniProt ID:	Q6ZQ29
Cytogenetics:	7 F3
Gene Summary:	Serine/threonine-protein kinase involved in different processes such as membrane blebbing and apoptotic bodies formation DNA damage response and MAPK14/p38 MAPK stress-activated MAPK cascade. Phosphorylates itself, MBP, activated MAPK8, MAP2K3, MAP2K6 and tubulins. Activates the MAPK14/p38 MAPK signaling pathway through the specific activation and phosphorylation of the upstream MAP2K3 and MAP2K6 kinases. 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 upstream MAP2K3 and MAP2K6 kinases. May affect microtubule organization and stability. May play a role in the osmotic stress-MAPK8 pathway. Prevents MAP3K7-mediated activation of CHUK, and thus NF-kappa-B activation. Isoform 2, but not isoform 1, is required for PCDH8 endocytosis. Following homophilic interactions between PCDH8 extracellular domains, isoform 2 phosphorylates and activates MAPK14/p38 MAPK which in turn phosphorylates isoform 2. This process leads to PCDH8 endocytosis and CDH2 cointernalization. Both isoforms are involved in MAPK14/p38 MAPK activation (By similarity).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (2) represents the longer transcript and encodes the longer isoform (2). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.