

Product datasheet for **MC223406**

Taok2 (NM_001163774) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Taok2 (NM_001163774) 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: >MC223406 representing NM_001163774
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCCAGCTGGGGCCGGGCCGGGAGCCTGAAGGACCCTGATGTGGCTGAGCTCTTCTTCAAGGATGACC
 CTGAGAAGCTCTTCTGACCTCCGGGAGATCGGCCATGGCAGCTTTGGAGCAGTGTACTTTGCCGGGA
 TGTCGGGAACAGTGAGGTGGTGGCCATCAAGAAGATGTCTATAGTGGGAAGCAATCAAATGAGAAATGG
 CAGGATATCATCAAGGAAGTGCGGTTCTTACAGAAGCTACGGCATCTAATACCATTCACTACCGGGCT
 GTTACCTGAGGGAGCACACAGCTTGGCTGGTGTGGAGTATTGCCTGGGCTCAGCTTCTGATCTTCTAGA
 AGTGCACAAGAAACCCCTGCAGGAGGTAGAGATTGCAGCTGTGACCCATGGGGCTCTTACAGGCTGGCA
 TATCTACACTCACACAACATGATCCATAGAGATGTGAAGGCTGGAAACATCTTGTGTGTCAGAACCAGGCT
 TGGTAAACTGGGGGACTTTGGCTCTGCGTCAATCATGGCACCTGCCAACTCTTTTGTGGTACTCCATA
 CTGGATGGCTCCAGAGGTGATCCTAGCCATGGATGAGGGACAATATGATGGCAAAGTGGATGTCTGGTCC
 TTGGGGATAACCTGTATTGAGCTAGCGGAGCGGAAGCCACCCTGTTCAACATGAATGAATGAGTGCCT
 TATACCACATTGCACAGAATGAATCTCCTGCTCCTCAGTCAGGACTGGTCTGAGTACTCCGGAATTT
 TGTTGACTCCTGTCTTCAGAAAATCCCTCAAGACAGACCAACCTCAGAGTTCTTTTGAAGCACCGCTTT
 GTGCTCCGGGAGCGACCGCCACAGTCATCATGGACCTAATCCAGAGGACCAAGGATGCTGTACGGGAAC
 TGGATAACCTGCAGTACCGAAAGATGAAGAAGATACTGTTCCAAGAGGCACCCAATGGCCCTGGTGTGA
 GGCCCCAGAGGAAGAGGAGCTCACACCCTGTTCCAGGAGGCAGAACCTTACACGCACCGTGCAGGGACA
 CTGACCAGTCTAGAGAGCAGCCATTCACTGCCAGCATGTCCATCAGCGCCTCCAGCCAGAGCAGCTCAG
 TCAACAGCCTAGCAGATGCCTCAGATAATGAAGAAGAGGAGGAAGAAGAAGAGGAAGAGGAGGAGGAGGA
 GGAGGAAGAAGGCCCTGAATCCAGAGAGATGGCCATGATGCAGGAGGGGGAGCATACAGTCACTTCCCAC
 AGCTCCATCATCCACCGCTGCCGGCTCAGACAACCTATATGATGATCCCTACCAGCCAGAGATGACCC
 CAGGTCCACTCCAGCCACTGCAGCCCCCTCCACTCCACTCCTCTTCTGCTCGCCGAGAGCTTATTG
 CCGCAACCGAGACCCTTTGCTACCATTCTGACTGCCTCCTGGTCAGCCGTGAGATCCAGGAGCATGAG
 CAGGACTCAGCCCTGCGAGAGCAGCTGAGTGGCTACAAGCGGATGCGACGTGAGCACCAGAAGCAACTGC



[View online »](#)

TGGCCCTGGAGTCCCGTCTGAGGGGTGAACGTGAGGAGCACAGTGGGCGTTACAGCGGGAGCTCGAGGC
 ACAGCGGGCTGGCTTTGGGACCGAGGCTGAGAAGCTGGCCCGGAGGCACCAGGCCATTGGTGAAGAAGGAG
 GCACGGGCTGCTCAGGCGGAGGAGCGGAAGTCCAGCAGCACATCCTGGGCAGCAGAAGAAGGAGCTGG
 CCGCCCTGCTGGAGGCGCAGAAGCGAACCTACAAGCTGCGGAAGGAGCAGTTGAAAGAGGAGCTCCAGGA
 GAACCCTAGCACACCCAAACGAGAGAAGGCTGAGTGGCTGTTGAGGCAAAGGAGCAGTTGCAACAGTGC
 CAGGCAGAAGAGGAAGCGGGGCTGCTGCGGAGGCAGCGCCAGTACTTTGAACTTCAGTGTGCGCAATACA
 AGCGCAAGATGCTACTGGCTCGGCACAGCCTAGATCAGGACCTGCTTCGAGAGGACTTGAATAAGAAACA
 GACACAGAAGGACTTGGAGTGTGCTCTGCTGTTACGGCAGCATGAGGCTACCCGAGAGCTGGAGCTAAGA
 CAGCTCCAGGCTGTCCAGCGCACACGTGCTGAACTTACCCGCTTCAGCACCAGACAGAAGTCCAGCAACC
 AGCTGGAGTACAACAAGCGACGGGAGCAAGAATTACGGCAGAAGCACGCGGCCAGGTTCCGACAGCAGCC
 CAAGAGCCTCAAATCAAAGGAGCTGCAGATCAAGAAGCAGTTCAGGAGACGTGTAAAGTCCAGACGCGG
 CAATAAAGGCTCTTCGGGCACACTTGTGAGACCACACCCAAAGCTCAGCACAAAGAGCCTTCTTAAGC
 GGCTCAAGGAGGAGCAGACCCGCAAGCTGGCGATCCTGGCTGAGCAGTATGACCAGTCCATTTAGAGAT
 GCTCAGCTCGCAGGCGCTCCGGCTTGATGAGACCCAAGAGGCAGAGTTTCAGGCCCTGCGGCAGCAGCTC
 CAGCAGGAGCTGGAGCTCCTCAACGCTTACCAGAGCAAGATCAAGATCCGCACAGAGAGCCAGCATGAGC
 GGGAGCTGAGGGAGCTGGAGCAGAGAGTAGCTCTGAGGCGGGCACTGCTAGAGCAACGGGTGGAAGAAGA
 GCTGCTGGCCCTACAGACAGGCCGTTCCGGAACGTATCCGAGTTCGTTGAGCGGCAGGCCCGTGAGATC
 GAGGCCTTCGATGCTGAGAGCATGAGACTGGGCTTCTCCAGCATGGCTCTGGGGGCATTCCAGTGAAG
 CTGCGGCCCAGGGCTATCCTGCTCCACCCCGGCCCTGCCTGGCCCTCCCGTCCAGTTCGCCGTTCCAGG
 GGCCATTGGAGCCATGGCCCTCCTCCACCAGGCATGCCCCACCAGCTTGGCGTCAGCCAGCTCTGCTG
 GCTCCCCAGGGCCTCAAACCTGGTTAGGGCCCCAACACAGAGTGAACACCCCGTGGAGGGGCTCTGC
 TGCTGCTAAGAAACAGTCTCAACCCCTAAGGCGGGCAGCGTCAGGGGGCAGCAGTGGTGAACGTCGG
 CCCACCTGCTGCAGTGCCAGGGCCGCTGAGCCGAAGCACCAGTGTGCTTCCCACATCTCAACGGCTCC
 TCCACTTCTATTCTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001163774
- Insert Size:** 3168 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_001163774.1, NP_001157246.1
- RefSeq Size:** 4986 bp

RefSeq ORF: 3168 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 (1) uses an alternate splice pattern in the 3' coding region and 3' UTR, compared to variant 2. The resulting isoform (1) has a shorter and distinct C-terminus, compared to 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.