

Product datasheet for **MC223157**

Taok1 (NM_144825) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Taok1 (NM_144825) Mouse Untagged Clone
Tag: Tag Free
Symbol: Taok1
Synonyms: 2810468K05Rik; AU020252; D130018F14Rik; Map3k16; Markk; mKIAA1361; Psk2
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC223157 representing NM_144825
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCCCACTAACAGAGCAGGCAGTCTAAAGGACCCTGAAATTGCAGAGCTCTTCTTCAAGAAGATC
CGGAAAAGCTCTCACAGATCTCAGAGAAATCGCCATGGGAGCTTTGGAGCAGTATATTTGCACGAGA
TGTGCGTACTAATGAAGTGGTGGCCATCAAGAAAATGTCTTATAGTGGAAAGCAGTCTACTGAGAAATGG
CAGGATATTATTAAGGAAGTCAAGTTTCTACAAAGAATAAAACATCCCAACAGTATAGAATACAAAGGCT
GCTATTTACGTGAACACACAGCATGGCTTGAATGGAATATTGTTTAGGATCTGCTTCAGATTTATTAGA
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TATTTACATTCTCATACCATGATCCATAGAGATATCAAAGCAGGAAATATCCTTCTGACAGAACCAGGCC
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TAAGCGGATGAGGCGACAGCATCAAAGCAGCTGATGACGCTGGAAAATAAACTGAAGGCAGAGATGGAC
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TTATTAAGAAACACCAAGCTGCTATGGAAAAAGAGGCTAAAGTGATGGCCAATGAGGAGAAAAATTC
GCAACACATTCAGGCTCAACAGAAAAAGAACTGAATAGCTTTTTGGAGTCTCAAAAAAGAGAATAAAA
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GGCTTTCAAAGCAGAAGGAGAATATACAGCATTTCAGGCAGAAGAAGAGCTAATCTTCTTCGACGTCA
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GTCATCCGATGCAAGGTGGACCCCAACCATGGGGTTCATCCCTCAGGGCCAATGCAAGGGGTACCTCGAGG
TAGCAGTATGGGAGTCCGCAATAGCCCCAGGCTTTGAGGCGGACAGCTTCTGGGGGACGGACGGAACAG
GGCATGAGCAGAAGCAGAGTGTCACTTCAAAATATCCAATGGGTCACACATGTCTTACACATAA

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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_144825
- Insert Size:** 3006 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_144825.2](#), [NP_659074.2](#)
- RefSeq Size:** 12411 bp
- RefSeq ORF:** 3006 bp
- Locus ID:** 216965

UniProt ID: [Q5F2E8](#)

Cytogenetics: 11 B5

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 (By similarity).[UniProtKB/Swiss-Prot Function]