

Product datasheet for **RC201031**

TAOK3 (NM_016281) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TAOK3 (NM_016281) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TAOK3
Synonyms:	DPK; hKFC-A; JIK; MAP3K18
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC201031 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCGTAAAGGGGTGCTGAAGGACCCAGAGATTGCCGATCTATTCTACAAAGATGATCCTGAGGAACTTT
 TTATTGGTTTGCATGAAATTGGACATGGAAGTTTTGGAGCAGTTTATTTTGTACAAATGCTCACACCAG
 TGAGGTGGTGGCAATTAAGAAGATGTCCTATAGTGGGAAGCAGACCCATGAGAAATGGCAAGATATTCTT
 AAGGAAGTTAAATTTTTACGACAATTGAAGCATCCTAATACTATTGAGTACAAAGGCTGTTACTTGAAAG
 AACACACTGCTTGGTTGGTATGGAATATTGCTTAGGCTCAGCCTCTGATTTATTAGAAGTTCATAAAAA
 ACCACTTCAGGAAGTGGAGATCGCTGCCATTACTCATGGAGCCTTGCATGGACTAGCCTACCTACATTCT
 CATGCATTGATTCATAGGGATATTAAGCAGGAAATATTCTTCTAACAGAGCCAGGTCAGGTAAGACTAG
 CTGATTTTGGATCTGCTCAATGGCTTCTCCTGCCAACTCCTTCGTGGGCACACCTTACTGGATGGCTCC
 AGAGGTGATCTTAGCTATGGATGAAGGACAGTATGATGGGAAAGTTGATATTTGGTCACTTGGCATCACT
 TGTATTGAATTGGCGGAACGGAAGCCGCCCTTTTCAACATGAATGCAATGAGTGCCCTATATCACATTG
 CCCAGAATGACTCCCAACGTTACAGTCTAATGAATGGACAGACTCCTTTAGGAGATTTGTTGATTACTG
 CTTGCAGAAAACTCAGGAAAGGCCAACATCAGCAGAACTATTAAGGCATGACTTTGTTGACGAGAC
 CGGCCACTACGTGTCCTCATTGACCTCATAACAGAGGACAAAAGATGCAGTTTCGTGAGCTAGATAACCTAC
 AGTACCGAAAAATGAAAAAATACTTTTCCAAGAGACACGGAATGGACCTTGAATGAGTACAGGAGGA
 TGAGGAAGACAGTGAACATGGAACAGCCTGAACAGGAAATGGACAGCCTGGGCAGCAACCATTCATT
 CCAAGCATGTCCGTGAGCACAGGCAGCCAGAGCAGCAGTGTGAACAGCATGCAGGAAGTCATGGACGAGA
 GCAGTTCGCAACTTGTGATGATGCAGATGACGAAAGCACAATCAATTCAGCTCCTCCGTGTCATAA
 GAAAGATCATGTATTCATAAGGGATGAGGCGGGCCACGGCGATCCAGGCCTGAGCCGCGGCCCTACCCAG
 TCAGTTACAGGCCAGGCCCTCCACTACCGGAACAGAGAGCGCTTTGCCACGATCAAAATCAGCATCTTTGG
 TTACACGACAGATCCATGAGCATGAGCAGGAGAACGAGTTGCGGGAACAGATGTCAGGTTATAAGCGGAT
 GCGGCGCCAGCACCAGAAGCAGCTGATCGCCCTGGAGAACAAGCTGAAGGCTGAGATGGACGAGCACCCGC
 CTCAGCTACAGAAGGAGGTGGAGACGCATGCCAACAACTCGTCCATCGAGCTGGAGAAGCTGGCCAAGA
 AGCAAGTGGCTATCATAGAAAAGGAGGCAAAAGGTAGCTGCAGCAGATGAGAAGAAGTCCAGCAACAGAT
 CTTGGCCAGCAGAAGAAAGATTTGACAACTTTCTTAGAAAGTCAGAAGAAGCAGTATAAGATTTGTAAG
 GAAAAAATAAAAGAGGAAATGAATGAGGACCATAGCACACCCAAGAAAGAGAAGCAAGAGCGGATCTCCA
 AACATAAAGAGAACTTGCAGCACACAGGCTGAAGAGGAAGCCACCTTCTCACTCAACAGAGACTGTA
 CTACGACAAAAATTGTCGTTTTCTCAAGCGGAAAAATAATGATCAAGCGGCACGAGGTGGAGCAGCAGAAC
 ATTCGGGAGGAACTAAATAAAAAGAGGCCAGGAGATGGAGCATGCCATGCTAATCCGGCAGCAGC
 AGTCCACCCGAGAGCTAGAGTACAGGCAGCTGCACACGTTACAGAAGCTACGCATGGATCTGATCCGTTT
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 AGGACACTTGCAAAGTACAGACCAACAGTATAAAGCACTCAAGAATCACCAGTTGGAAGTTACTCCAAA
 GAATGAGCACAAAACAATCTTAAGACTGAAAGATGAGCAGACAAGAAAATTTGCCATTTTGGCAGAG
 CAGTATGAACAGAGTATAAATGAAATGATGGCCTCTCAAGCGTTACGGCTAGATGAGGCTCAAGAAGCAG
 AATGCCAGGCTTGGAGTACAGCTCCAGCAGGAAATGGAGCTGCTCAACGCCTACCAGAGCAAAAATCAA
 GATGCAAAACAGAGGCACAACATGAACGTGAGCTCCAGAAGCTAGAGCAGAGAGTGTCTCTGCGCAGAGCA
 CACCTTGAGCAGAAGATTGAAGAGGAGTGGCTGCCCTTCAGAAGGAACGCAGCGAGAGAATAAAGAACC
 TATTGGAAAGGCAAGAGCGAGAGATTGAAACTTTTGACATGGAGAGCCTCAGAATGGGATTTGGGAATTT
 GGTTACATTAGATTTTCTAAGGAGGACTACAGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC201031 protein sequence
Red=Cloning site Green=Tags(s)

MRKGVLDKPEIADLFYKDDPEELFIGLHEIGHGSFGAVYFATNAHTSEVVAIKKMSYSGKQTHEKWQDIL
 KEVKFLRQLKHPNTIEYKGCYLKEHTAWLVMEYCLGSASDLLEVHKKPLQEVEIAAITHGALHGLAYLHS
 HALIHRDIKAGNILLTEPGQVKLADFGSASMSPANSFVGTPYWMAPEVILAMDEGQYDGKVDIWSLGIT
 CIELAERKPPFLFNMNAMSALYHIAQNDSPTLQSNWTDSEFRFVDYCLQKIPQERPTSAELLRHDFVRRD
 RPLRVLIDLIRTKDAVRELDNLQYRKMKKILFQETRNGPLNESQEDEEEDSEHGTSLNREMSLGSNHSI
 PSMVSTGSQSSSVNSMQEVMDESSSELVMMHDESTINSSSSVHKKDHFVIRDEAGHGDRPPEPRPTQ
 SVQSQUALHYRNRERFATIKSASLVTRQIHEHEQENELREQMSGYKMRQHQKQLIALENKLAEMDEHR
 LKLQKEVETHANSSIELEKLAKKQVAIEEKEAKVAADEKFKQQQILAQQKQKDLTTFLESQKKQYKICK
 EKIKEEMNEDHSTPKKEKQERISKHKNLQHTQAEAAHLLTQQRLYYDKNCRFFKRKIMIKRHEVEQQN
 IREELNKKRTQKEMEHAMLIRHDESTRELEYRQLHTLQKLRMDLIRLQHQTLENQLEYNKRRERELHRK
 HVMELRQQPKNLKAMEMQIKKQFQDTCKVQTKQYKALKNHQLEVTPKNEHKTILKTLKDEQTRKLAIAE
 QYEQSINEMMASQALRLDEAQEAECQALRLQLQEMELLNAYQSKIKMQTEAQHERELQKLEQRVSLRRA
 HLEQKIEEELAALQKERSERIKNLLERQEREIETFDMESLRMGFNLVTLDFPKEDYR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6291_f05.zip

Restriction Sites: SgfI-MluI

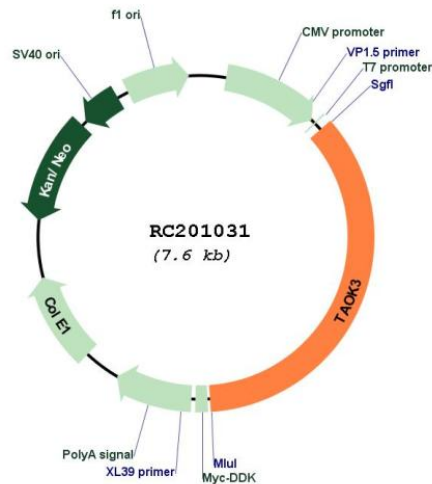
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_016281

ORF Size: 2694 bp

OTI Disclaimer: 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_016281.4](#)

RefSeq Size: 4399 bp

RefSeq ORF: 2697 bp

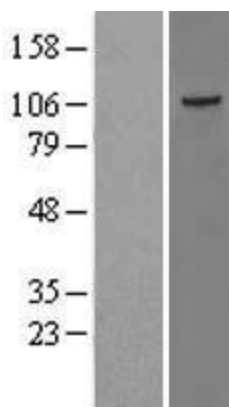
Locus ID: 51347

UniProt ID: [Q9H2K8](#)

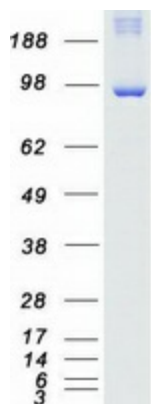
Cytogenetics: 12q24.23

Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	MAPK signaling pathway
MW:	105.4 kDa
Gene Summary:	The protein encoded by this gene is a serine/threonine protein kinase that activates the p38/MAPK14 stress-activated MAPK cascade but inhibits the basal activity of the MAPK8/JNK cascade. The encoded protein is a member of the GCK subfamily of STE20-like kinases. [provided by RefSeq, Oct 2016]

Product images:



Western blot validation of overexpression lysate (Cat# [LY414078]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201031 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TAOK3 protein (Cat# [TP301031]). The protein was produced from HEK293T cells transfected with TAOK3 cDNA clone (Cat# RC201031) using MegaTran 2.0 (Cat# [TT210002]).