

Product datasheet for **RC204242**

TAP1 (NM_000593) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TAP1 (NM_000593) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TAP1
Synonyms:	ABC17; ABCB2; APT1; D6S114E; PSF-1; PSF1; RING4; TAP1*0102N; TAP1N
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC204242 representing NM_000593
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTGAGCTTCTCGCCAGCGCAGGATCAGCCTGTTCTGGACTTTCCGAGAGCCCCGCCTCGTTCC
 CCCCCAGCCGCGCAGTAGGGGAGGACTCGGCGGTACCCGGAGCTTCAGGCCCCACCGGGCGCGGAGAG
 TCCAGGCCCGCGCGGGACCGGGACGGCGTCCGAGTGCCAATGGCTAGCTCTAGGTGTCCCGCTCCCGC
 GGGTGCCGCTGCCTCCCGGAGCTTCTCTCGCATGGCTGGGACAGTACTGCTACTTCTCGCCGACTGGG
 TGCTGCTCCGACCGCGCTGCCCGCATATTCTCCCTGCTGGTGCCACCGCGCTGCCACTGCTCCGGGT
 CTGGGCGGTGGGCTGAGCCGCTGGCCGTGCTCTGGTGGGGCCTGCGGGTCTCAGGGCAACGGTT
 GGCTCAAAGAGCGAAAACGCAGGTGCCAGGGCTGGCTGGCTGCTTTGAGCCATTAGCTGCGGCACTGG
 GCTTGGCCCTGCCGGGACTTGCCTTGTCCGAGAGCTGATCTCATGGGAGCCCCGGGTCCGCGGATAG
 CACCAGGCTACTGCACTGGGAAGTCACCTACCGCCTTCGTTGTCAGTTATGCAGCGGCACTGCCCGCA
 GCAGCCCTGTGGCACAACCTCGGAGCCTCTGGGTGCCCGCGGTGAGGGCGGCTCTGAAACCCTGTGC
 GTCGGCTTCTAGGCTGCCTGGGCTCGGAGACGCGCCGCTCTCGTGTTCCTGGTCTGGTGGTCTCTC
 CTCTTTGGGAGATGGCCATTCATTCTTTACGGGCGCCTCACTGACTGGATTCTACAAGATGGCTCA
 GCCGATACCTTCACTCGAACTTAACCTCATGTCCATTCTACCATAGCCAGTGCAGTGTGGAGTTTCG
 TGGGTGACGGGATCTATAACAACACCATGGGCCACGTGCACAGCCACTTGCAGGGAGAGGTGTTGGGGC
 TGTCTGCGCCAGGAGACGGAGTTTTTCCAACAGAACCAGACAGGTAACATCATGTCTCGGTAACAGAG
 GACACGTCCACCCTGAGTGATTCTCTGAGTGAGAATCTGAGCTTATTTCTGTGGTACCTGGTCCGAGGCC
 TATGCTCTTGGGATCATGCTCTGGGATCAGTGTCCCTACCATGGTCAACCCTGATCACCTGCCTCT
 GCTTTTCCTTCTGCCAAGAAGGTGGGAAAATGGTACCAGTTGCTGGAAGTGCAGGTGCGGGAATCTCTG
 GCAAAGTCCAGCCAGGTGGCCATTGAGGCTCTGTCGGCCATGCCTACAGTTTCAAGCTTTGCCAACGAGG
 AGGGCGAAGCCAGAAGTTAGGGAAAAGCTGCAAGAAATAAGACACTCAACCAGAAGGAGGCTGTGGC
 CTATGCAGTCAACTCCTGGACCACTAGTATTTAGGATGCTGCTGAAAGTGGGAATCCTCTACATTGGT
 GGGCAGCTGGTGACCAGTGGGCTGTAAGCAGTGGGAACCTTGTACATTTGTTCTTACCAGATGCAGT
 TCACCCAGGCTGTGGAGTACTGCTCTCCATCTACCCAGAGTACAGAAGGCTGTGGGCTCCTCAGAGAA
 AATATTTGAGTACCTGGACCGCACCCCTCGCTGCCACCCAGTGGTCTGTTGACTCCCTTCACTTGGAG
 GGCCTTGTCCAGTCCAAGATGTCTCCTTGCCTACCCAAACCGCCAGATGCTTGTAGTGTACAGGGGC
 TGACATTCACCCTACGCCCTGGCGAGGTGACGGCGCTGGTGGGACCCAATGGGTCTGGGAAGAGCAGT
 GGCTGCCCTGCTGCAGAATCTGTACCAGCCACCGGGGACAGCTGCTGTTGGATGGGAAGCCCTTCCC
 CAATATGAGCACCCTACCTGCACAGGCAGGTGGCTGCAGTGGGACAAGGCCACAGGATTTTGGAGAA
 GTCTTCAAGAAAATATTGCCTATGGCCTGACCCAGAAGCCAACCTATGGAGGAAATCACAGCTGCTGCAGT
 AAAGTCTGGGGCCATAGTTTCTCTGGACTCCCTCAGGGCTATGACACAGAGGTAGACGAGGCTGGG
 AGCCAGCTGTAGGGGTCAGCGACAGGAGTGGCGTTGGCCGAGCATTGATCCGGAACCGTGTGTAC
 TTATCTGGATGATGCCACAGTGCCTGGATGCAAACAGCCAGTTACAGGTGGAGCAGCTCCTGTACGA
 AAGCCCTGAGCGGTACTCCCGCTCAGTCTTCTCATACCCAGCACCTCAGCCTGGTGGAGCAGGCTGAC
 CACATCTCTTTCTGGAAGGAGGCGCTATCCGGGAGGGGGGAACCCACCAGCAGCTCATGGAGAAAAGG
 GGTGCTACTGGCCATGGTGCAGGCTCCTGCAGATGCTCCAGAA

ACGCGTACGCGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC204242 representing NM_000593
Red=Cloning site Green=Tags(s)

MAELLASAGSACSWDFPRAPPSFPPPAASRGGLGGTRSFRRPHRGAESPRPGRDRDGVVPMASRCAPR
GCRCLPGASLAWLGTVLLLLADWVLLRTALPRIFSLLVPTALPLLRVWAVGLSRWAVLWLGACGVLRAV
GSKSENAGAQQWLAALKPLAAALGLALPGLALFRELISWGAPGSADSTRLLHWGSHPTAFVVSAAAALPA
AALWHKLGSLWVPGGQGGSGNPVRRLLGCLGSETRRRLSLFLVLVVLSSLGEMAIFFFTGRLTDWILQDGS
ADTFTRNLTLMSILTIASAVLEFVGDGIYNNMGMHVHSHLQGEVFGAVLRQETEFFQQNQTGNIMSRVTE
DTSTLSDSLSENLSLFLWYLVRLGCLLGIMLWGSVSLTMVTLITLPLLFLPKKVGVKQWYQLLEVQVRESL
AKSSQVAIEALSAMPTVRSFANEEGEAQKFREKLQEIKTLNQEAVAYAVNSWTTISGMLLKVGILYIG
GQLVTSGAVSSGNLVTFVLYQMFTQAVEVLLSIYPRVQKAVGSSEKIFEYLDRTPRCPPSGLLTPHLE
GLVQFQDVSFAYPNRPDVLVLQGLTFTLRPGEVTALVGPNGSGKSTVAALLQNLVQPTGGQLLLDGKPLP
QYEHRYLHRQVAAVGQEPQVFRSLQENIAYGLTQKPTMEEITAAAVKSGAHSFISGLPQGYDTEVDEAG
SQLSGGQRQAVALARALIRKPCVLI DDATSALDANSQLQVEQLLYESPERYSRSVLLITQHLSLVEQAD
HILFLEGGAIREGGTHQQLMEKKGICYWAMVQAPADAPE

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



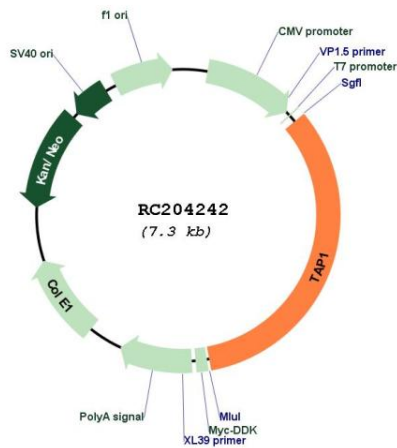
* The last codon before the Stop codon of the ORF

ACCN: NM_000593
 ORF Size: 2424 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_000593.5 , NP_000584.2
RefSeq Size:	2974 bp
RefSeq ORF:	2247 bp
Locus ID:	6890
UniProt ID:	Q03518
Cytogenetics:	6p21.32
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	ABC transporters, Antigen processing and presentation, Primary immunodeficiency
MW:	87 kDa

Gene Summary:

The membrane-associated protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MDR/TAP subfamily. Members of the MDR/TAP subfamily are involved in multidrug resistance. The protein encoded by this gene is involved in the pumping of degraded cytosolic peptides across the endoplasmic reticulum into the membrane-bound compartment where class I molecules assemble. Mutations in this gene may be associated with ankylosing spondylitis, insulin-dependent diabetes mellitus, and celiac disease. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2014]

Product images:


Circular map for RC204242