

## Product datasheet for **RG204242**

### **TAP1 (NM\_000593) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TAP1 (NM_000593) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TAP1
Synonyms:	ABC17; ABCB2; APT1; D6S114E; PSF-1; PSF1; RING4; TAP1*0102N; TAP1N
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204242 representing NM\_000593  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCTGAGCTTCTCGCCAGCGCAGGATCAGCCTGTTCTGGACTTTCCGAGAGCCCCGCCTCGTTCC  
 CCCCCAGCCGCGCAGTAGGGGAGGACTCGGCGGTACCCGGAGCTTCAGGCCCCACCGGGGCGCGGAGAG  
 TCCAGGCCCGGCCGGGACCGGGACGGCGTCCGAGTGCCAATGGCTAGCTCTAGGTGTCCCGCTCCCGCG  
 GGGTGCCGCTGCCTCCCGGAGCTTCTCTCGCATGGCTGGGACAGTACTGCTACTTCTCGCCGACTGGG  
 TGCTGCTCCGGACCGCGCTGCCCGCATATTCTCCCTGCTGGTGCCACCGCGCTGCCACTGCTCCGGGT  
 CTGGGCGGTGGGCTGAGCCGCTGGGCCGTGCTGGCTGGGGGCTGCGGGTCTCAGGGCAACGGTT  
 GGCTCAAAGAGCGAAAACGCAGGTGCCAGGGCTGGCTGGCTGCTTGAAGCCATTAGCTGCGGCACTGG  
 GCTTGGCCCTGCCGGGACTTGCCTTGTCCGAGAGCTGATCTCATGGGAGCCCCGGGTCCGCGGATAG  
 CACCAGGCTACTGCACTGGGAAGTACCCTACCGCCTTCGTTGTCAGTTATGCAGCGGCACTGCCCGCA  
 GCAGCCCTGTGGCACAACCTCGGAGCCTCTGGGTGCCCGCGGTGAGGGCGGCTCTGAAACCCCTGTGC  
 GTCGGCTTCTAGGCTGCCTGGGCTCGGAGACGCGCCGCTCTCGCTGTTCTGGTCTGGTGGTCTCTC  
 CTCTTTGGGAGATGGCCATTCATTCTTTACGGGCGCCTCACTGACTGGATTCTACAAGATGGCTCA  
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 TGGGTGACGGGATCTATAACAACACCATGGGCCACGTGCACAGCCACTTGCAGGGAGAGGTGTTGGGGC  
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 GCTTTTCTTCTGCCAAGAAGGTGGGAAAATGGTACCAGTTGCTGGAAGTGCAGGTGCGGGAATCTCTG  
 GCAAAGTCCAGCCAGGTGGCCATTGAGGCTCTGTCGGCCATGCCTACAGTTCGAAGCTTTGCCAACGAGG  
 AGGGCGAAGCCAGAAGTTAGGGAAAAGCTGCAAGAAATAAGACACTCAACCAGAAGGAGGCTGTGGC  
 CTATGCAGTCAACTCCTGGACCACTAGTATTTAGGATGCTGCTGAAAGTGGGAATCCTCTACATTGGT  
 GGGCAGCTGGTGACCAGTGGGCTGTAAGCAGTGGGAACCTTGTACATTTGTTCTTACCAGATGCAGT  
 TCACCCAGGCTGTGGAGTACTGCTCTCCATCTACCCAGAGTACAGAAGGCTGTGGGCTCCTCAGAGAA  
 AATATTTGAGTACCTGGACCGCACCCCTCGCTGCCACCCAGTGGTCTGTTGACTCCCTTCACTTGGAG  
 GGCCTTGTCCAGTCCAAGATGTCTCCTTGCCTACCCAAACCGCCAGATGTCTTAGTGCTACAGGGGC  
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 GGCTGCCCTGCTGCAGAATCTGTACCAGCCACCGGGGACAGCTGCTGTTGGATGGGAAGCCCTTCCC  
 CAATATGAGCACCGCTACCTGCACAGGCAGGTGGCTGCAGTGGGACAAGGCCACAGGATTTTGGAGAA  
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 AAGCCCTGAGCGGTACTCCCGCTCAGTCTTCTCATACCCAGCACCTCAGCCTGGTGGAGCAGGCTGAC  
 CACATCTCTTTCTGGAAGGAGGCGCTATCCGGGAGGGGGGAACCCACCAGCAGCTCATGGAGAAAAGG  
 GGTGCTACTGGGCCATGGTGCAGGCTCCTGCAGATGCTCCAGAA

**ACCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG204242 representing NM\_000593  
 Red=Cloning site Green=Tags(s)

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MAELLASAGSACSWDFPRAPPSFPPPAASRGGLGGTRSFRRPHRGAESPRPGRDRDGVVPMASRCAPR
GCRCLPGASLAWLGTVLLLLADWVLLRTALPRIFSLLVPTALPLLRVWAVGLSRWAVLWLGACGVLRAV
GSKSENAGAQQWLAALKPLAAALGLALPGLALFRELISWGAPGSADSTRLLHWGSHPTAFVVSAAAALPA
AALWHKLGSLWVPGGQGGSGNPVRRLLGCLGSETRRLSLFLVLVVLSSLGEMAIPIFFTGRLLTDWILQDGS
ADTFTRNLTLMSILTIASAVLEFVGDGIYNNMGMHVHSHLQGEVFGAVLRQETEFFQQNQTGNIMSRVTE
DTSTLSDSLSENLSLFLWYLRGLCLLGIMLWGSVSLTMVTLITLPLLFLPKKVGVKQWYQLLEVQVRESL
AKSSQVAIEALSAMPTVRSFANEEGEAQKFREKLQEIKTLNQEAVAYAVNSWTTISGMLLKVGILYIG
GQLVTSGAVSSGNLVTFVLYQMFTQAVEVLLSIYPRVQKAVGSSEKIFEYLDRTPRCPPSGLLTPHLE
GLVQFQDVSFAYPNRPDVLVLQGLTFTLRPGEVTALVGPNGSGKSTVAALLQNLQPTGGQLLLDGKPLP
QYEHRYLHRQVAAVGQEPQVFGRSLQENIAYGLTQKPTMEEITAAAVKSGAHSFISGLPQGYDTEVDEAG
SQLSGGQRQAVALARALIRKPCVLI LDDATSALDANSQLQVEQLLYESPERYSRSVLLITQHLSLVEQAD
HILFLEGGAIREGGTHQQLMEKKGICYWAMVQAPADAPE
  
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TRTRPLE - GFP Tag - V

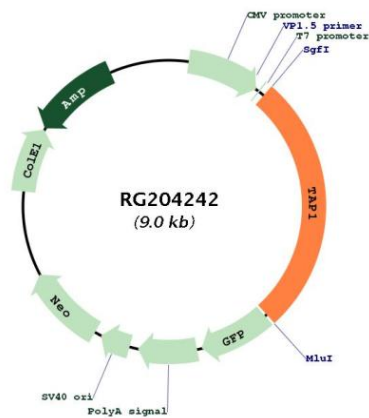
**Restriction Sites:** Sgfl-MluI



<b>OTI Disclaimer:</b>	<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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_000593.5</a> , <a href="#">NP_000584.2</a>
<b>RefSeq Size:</b>	2974 bp
<b>RefSeq ORF:</b>	2247 bp
<b>Locus ID:</b>	6890
<b>UniProt ID:</b>	<a href="#">Q03518</a>
<b>Cytogenetics:</b>	6p21.32
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	ABC transporters, Antigen processing and presentation, Primary immunodeficiency

**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 RG204242