

## Product datasheet for **RC238841**

### **TAP1 (NM\_001292022) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TAP1 (NM_001292022) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TAP1
Synonyms:	ABC17; ABCB2; APT1; D6S114E; PSF-1; PSF1; RING4; TAP1*0102N; TAP1N
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RC238841 representing NM\_001292022  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCATTCCATTCTTTACGGGCCCTCACTGACTGGATTCTACAAGATGGCTCAGCCGATACCTTCA  
 CTCGAAACTTAACTCTCATGTCCATTCTACCATAGCCAGTGCAGTGCTGGAGTTCGTGGGTGACGGGAT  
 CTATAACAACACCATGGGCCACGTGCACAGCCACTGCAGGGAGAGGTGTTTGGGGCTGTCTGCGCCAG  
 GAGACGGAGTTTTTCCAACAGAACCAGACAGGTAACATCATGTCTCGGGTAACAGAGGACACGTCCACCC  
 TGAGTGATTCTCTGAGTGAGAATCTGAGCTATTTCTGTGGTACCTGGTGCAGGCTATGTCTCTGGG  
 GATCATGTCTGGGGATCAGTGTCCCTACCATGGTACCCTGATCACCTGCCTCTGCTTTTCTTCTG  
 CCCAAGAAGGTGGGAAAATGGTACCAGTTGCTGGAAGTGCAGGTGCGGGAATCTCTGGCAAAGTCCAGCC  
 AGGTGGCCATTGAGGCTCTGTGCGCCATGCCTACAGTTCGAAGCTTTGCCAACGAGGAGGGCGAAGCCCA  
 GAAGTTTAGGGAAAAGCTGCAAGAAATAAGACTCAACCAGAAGGAGGCTGTGGCCTATGCAGTCAAC  
 TCTTGGACCACTAGTATTTACAGGTATGTGCTGAAAGTGGGAATCCTCTACATTGGTGGGACAGTGGTGA  
 CCAGTGGGGCTGTAAAGCAGTGGGAACCTTGTACATTTGTTCTCTACCAGATGCAGTTACCCAGGCTGT  
 GGAGTACTGCTCTCATCTACCCAGAGTACAGAAGGCTGTGGGCTCCTCAGAGAAAATATTTGAGTAC  
 CTGGACCCGACCCCTCGCTGCCACCCAGTGGTCTGTTGACTCCCTTACACTTGGAGGGCCTTGTCCAGT  
 TCCAAGATGTCTCTTTGCTACCCAAACCGCCAGATGTCTTAGTGCTACAGGGGCTGACATTCACCT  
 ACGCCCTGGCGAGGTGACGGCGCTGGTGGGACCAATGGTCTGGGAAGAGCACAGTGGCTGCCCTGCTG  
 CAGAATCTGTACCAGCCACCGGGGACAGTGTCTGGTGGATGGGAAGCCCTTCCCAATAGAGCACC  
 GCTACCTGCACAGGCAGTGGCTGCAGTGGGACAAGAGCCACAGGTATTTGGAAGAAGTCTCAAGAAAA  
 TATTGCCTATGGCCTGACCCAGAAGCAACTATGGAGGAAATCACAGCTGCTGCAGTAAAGTCTGGGGCC  
 CATAGTTTCATCTCTGGACTCCCTCAGGGCTATGACACAGAGGTAGACGAGGCTGGGAGCCAGTGTGAG  
 GGGGTGAGCGACAGGCAGTGGCGTTGGCCCGAGCATTGATCCGAAACCGTGTGTAATCTCTGGATGA  
 TGCCACCAGTGCCTGGATGCAAACAGCCAGTTACAGGTGGAGCAGTCTGTACGAAAGCCCTGAGCGG  
 TACTCCCGCTCAGTGTCTCATCACCCAGCACCTCAGCTGGTGGAGCAGGCTGACCACATCTCTTTT  
 TGAAGGAGGCGCTATCCGGGAGGGGGAAACCCACCAGCAGCTCATGGAGAAAAGGGGTGCTACTGGGC  
 CATGGTGCAGGCTCTGCAGATGCTCCAGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC238841 representing NM\_001292022  
 Red=Cloning site Green=Tags(s)

MAIPFFTGRITDWILQDGSADTFTRNLTLMSILTIASAVLEFVGDGIYNNMTMGHVHSHLQGEVFGAVLRQ  
 ETEFFQNQGTGNIMSRVTEDTSTLSDSLSENLSFLWYLVRGLCLLGIMLWGSVSLTMVTLITLPLLFLL  
 PKKVQKQYQLLEVQVRESLAKSSQVAIEALSAMPTVRSFANEEGEAQKFKREKLQEIKTLNQKEAVAYAVN  
 SWTTTISGMLLKVGILYIGGQLVTSGAVSSGNLVTFVLYQMFTQAVEVLLSIYPRVQKAVGSSEKIFEY  
 LDRTPRCPPSGLLTPLHLEGLVQFQDVSFAYPNRPDVLVLQGLTFTRPGEVTALVGPNGSGKSTVAALL  
 QNLYQPTGGQLLLDGKPLPQYEHRYLHRQVAAVGQEPQVFGRSLQENIAYGLTQKPTMEEITAAAVKSGA  
 HSFISGLPQGYDTEVDEAGSQLSGGQRQAVALARALIRKPCVLILDDATSALDANSQLQVEQLLYESPER  
 YSRVLLITQHLSLVEQADHILFLEGGAIREGGTHQQLMEKKGCYWAMVQAPADAPE

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

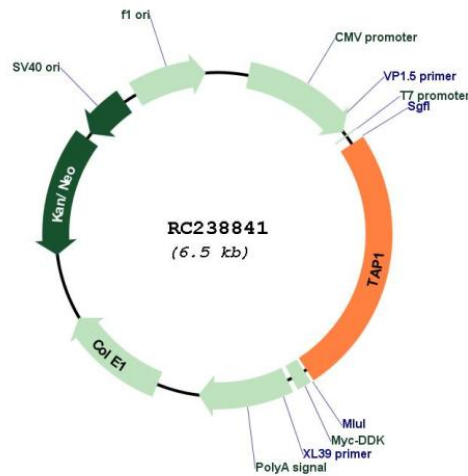
Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



<b>ACCN:</b>	NM_001292022
<b>ORF Size:</b>	1641 bp
<b>OTI Disclaimer:</b>	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>
<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_001292022.2</a>
<b>RefSeq Size:</b>	2234 bp
<b>RefSeq ORF:</b>	1644 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
<b>MW:</b>	60.4 kDa
<b>Gene Summary:</b>	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]