

## Product datasheet for **RG239305**

### **TAP2 (NM\_001290043) Human Tagged ORF Clone**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                              |
| Product Name:             | TAP2 (NM_001290043) Human Tagged ORF Clone       |
| Tag:                      | TurboGFP   |
| Symbol:                   | TAP2   |
| Synonyms:                 | ABC18; ABCB3; APT2; D6S217E; PSF-2; PSF2; RING11 |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)                          |
| E. coli Selection:        | Ampicillin (100 ug/mL)                           |



[View online »](#)

**ORF Nucleotide Sequence:**

>RG239305 representing NM\_001290043.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCACGATCGCC
ATGCGGCTCCCTGACCTGAGACCCTGGACCTCCCTGCTGCTGGTGGACGGGCTTTACTGTGGCTGCTT
CAGGGCCCTCTGGGGACTTTGCTTCTCAAGGGCTGCCAGGACTATGGCTGGAGGGGACCCTGCGGCTG
GGAGGGCTGTGGGGCTGCTAAAGCTAAGAGGGCTGCTGGGATTTGTGGGACACTGCTGCTCCCGCTC
TGCTGGCCACCCCTGACTGTCTCCCTGAGAGCCCTGGTCGCGGGGGCCTCACGTGCTCCCCAGCC
AGAGTCGCTTCAGCCCTTGGAGCTGGCTGCTGGTGGGTACGGGGCTGCGGGGCTCAGCTGGTCACTG
TGGGCTGTTCTGAGCCCTCTGGAGCCAGGAGAAGGAGCAGGACCAGGTGAACAACAAAGTCTTGATG
TGGAGGCTGCTGAAGCTCTCAGGCCGGACCTGCCTCTCCTCGTTGCCGCTTCTTCTCCTTGTCCTT
GCTGTTTTGGGTGAGACATTAATCCCTCACTATTCTGGTCGTGTGATTGACATCCTGGGAGGTGATTTT
GACCCCATGCCTTTGCCAGTGCCATCTTCTTCATGTGCCTCTTCTCCTTTGGCAGCTCACTGTCTGCA
GGCTGCCGAGGAGCTGCTTACCTACACCATGTCTCGAATCAACTTGGGATCCGGGAGCAGCTTTTC
TCCTCCCTGCTGCGCCAGGACCTCGTTTTCTCCAGGAGACTAAGACAGGGGAGCTGAACCTACGGCTG
AGCTCGGATACCACCCTGATGAGTAACGGCTTCTTTAAATGCCAATGTGCTCTTGCGAAGCCTGGTG
AAAGTGGTGGGGCTGTATGGCTTCATGCTCAGCATATCGCTCGACTCACCTCCTTTCTGCTGCAC
ATGCCCTTCACAATAGCAGCGGAGAAGGTGTACAACCCCGCCATCAGGAAGTGCTTCGGGAGATCCAG
GATGCAGTGGCCAGGGCGGGCAGGTGGTGCGGGAAGCCGTTGGAGGGCTGCAGACCCTTCGCAGTTTT
GGGGCCGAGGAGCATGAAGTCTGTCGTATAAAGAGGCCCTTGAACAATGTCGGCAGCTGTATTGGCGG
AGAGACCTGGAACGCGCCTTGTACCTGCTCGTAAGGAGGGTGTGCACTTGGGGTGCAGATGCTGATG
CTGAGCTGTGGGCTGCAGCAGATGCAGGATGGGAGCTCACCCAGGGCAGCCTGCTTTCTTTATGATC
TACCAGGAGAGCGTGGGGAGCTATGTGCAGACCCTGGTATACATATATGGGGATATGCTCAGCAAGGTG
GGAGCTGCAGAGAAGTTTTCTCTACATGACCAGCAGCAAATCTGCCTTACCTGGCAGCTTGCC
CCCACCACTCTGCAGGGGTTGTGAAATCCAAGACGTCTCCTTTGCATATCCCAATCGCCTGACAGG
CCTGTGCTCAAGGGGCTGACGTTTACCCTACGTCTGCTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
TCTGGGAAGACACAGTGGCTGCCCTGCTGCAGAACTGTACCAGCCACAGGGGACAGGTGCTGCTG
GATGAAAAGCCCATCTCACAGTATGAACACTGCTACCTGCACAGCCAGGTGGTTTCAGTTGGCAGGAG
CCTGTGCTGTTCTCCGGTCTGTGAGGAACAACATTGCTTATGGGCTGCAGAGCTGCGAAGATGATAAG
GTGATGGCGGCTGCCAGGCTGCCACGCAGATGACTTCCAGGAAATGGAGCATGGAATATACACA
GATGTAGGGGAGAAGGAAGCCAGCTGGCTGCGGGACAGAAACAACGTCTGGCCATTGCCGGGCCCTT
GTACGAGACCCGCGGGTCTCATCTGGATGAGGCTACTAGTGCCTAGATGTGCACTGCGAGCAGGCC
CTGCAGGACTGGAATCCCGTGGGGATCGCACAGTGTGGTATTGCTCACAGGCTGCAGACAGTTGAG
CGCGCCACCAGATCCTGGTGTCCAGGAGGGCAAGCTGCAGAAGCTTGCCAGCTC
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAAAC
  
```

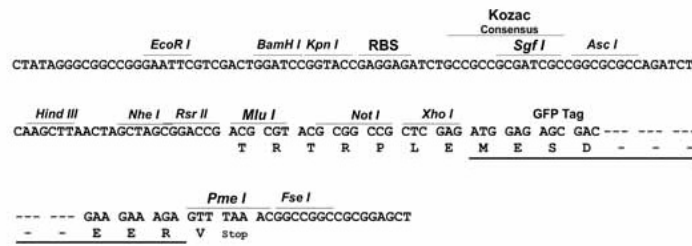
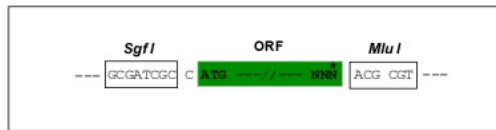
Protein Sequence: >Peptide sequence encoded by RG239305  
 Blue=ORF Red=Cloning site Green=Tag(s)

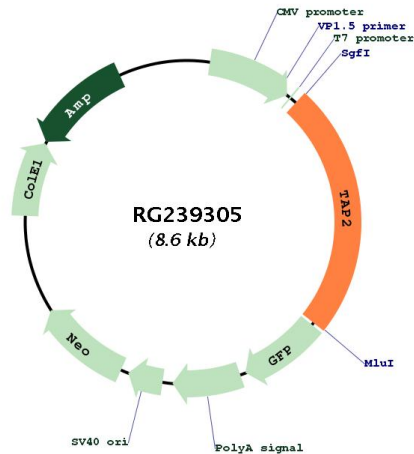
MRLPDLRPWTSLLL VDAALLWLLQGPLGTL LPQGLPGLWLEGLRLGGLWGLLKL RGLLGFVGTLLLPL  
 CLATPLTVSLRALVAGASRAPPARVASAPWSWLLVGYGAAGLSWSLWAVLSPPGAQEKEQDQVNNKVL M  
 WRLLKLSRPDLPLLVAFFFLVAVLGETLIPHYSGRVIDILGGDFDPHAFASAIFFMCLFSFGSSLSA  
 GCRGGCFYTM SRINLRIREQLFSSLLRQDLGFFQETKTGELNSRLSSDTTLM SNWLP LNANVLLRSLV  
 KVVGLYGFMLSISPRLTLLSLLHMPFTIAAEKVYNTRHQEVLREIQDAVARAGQVVREAVGGLQTVRSF  
 GAEHEVCRYKEALEQCRQLYWRDLERALLYL VRRVLHLGVQMLMLSCGLQQMQDGELTQGSLLSFMI  
 YQESVGSYVQTLVYIYGDMLSNVGAAEKVFSYMDRQPNLPSPGTLAPTTLQGVVKFQDVSFAYPNRPDR  
 PVLKGLTFTLRPGEVTALVGPNGSGKSTVAALLQNL YQPTGGQVLLDEKPI SQYEHCYLHSQVSVGQE  
 PVLFSGSRNNIAYGLQSCEDDKVMAAAQA AHADDFIQEMEHIYTDVGEKGSQLAAGQKQLAIARAL  
 VRDPRVILDEATSALDVQCEQALQDWNSRGDRTVLVIAHRLQTVQRAHQILVLQEGKLQKLAQL  
**TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV**  
 MGYGFYHFGTYP SGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVI GDFKVMGTGFPE  
 SVIFTDKIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** NM\_001290043

**ORF Size:** 2058 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

**RefSeq:** [NM\\_001290043.2](#)

**RefSeq Size:** 5732 bp

|                   |  |
|-------------------|--|
| RefSeq ORF:       | 2061 bp  |
| Locus ID:         | 6891   |
| UniProt ID:       | <a href="#">Q03519</a>   |
| Cytogenetics:     | 6p21.32  |
| Protein Families: | Druggable Genome, Transmembrane  |
| Protein Pathways: | ABC transporters, Antigen processing and presentation, Primary immunodeficiency  |
| MW:               | 75.7 kDa   |
| Gene Summary:     | <p>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. This gene is located 7 kb telomeric to gene family member ABCB2. The protein encoded by this gene is involved in antigen presentation. This protein forms a heterodimer with ABCB2 in order to transport peptides from the cytoplasm to the endoplasmic reticulum. Mutations in this gene may be associated with ankylosing spondylitis, insulin-dependent diabetes mellitus, and celiac disease. Alternative splicing of this gene produces products which differ in peptide selectivity and level of restoration of surface expression of MHC class I molecules. [provided by RefSeq, Feb 2014]</p> |