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# Product datasheet for RC219599

## Tapasin (TAPBP) (NM_172208) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | Tapasin (TAPBP) (NM_172208) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | Tapasin |
| **Synonyms:** | NGS17; TAPA; TPN; TPSN |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |



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**ORF Nucleotide Sequence:**

>RC219599 representing NM_172208
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAGTCCCTGTCTCTGCTCCTCGCTGTGGCTTTGGGCCTGGCGACCGCCGTCTCAGCAGGACCCGCGG
TGATCGAGTGTTGGTTCGTGGAGGATGCGAGCGGAAAGGGCCTGGCCAAGAGACCCGGTGCACTGCTGTT
GCGCCAGGGACCGGGGGAACCGCCGCCCCGGCCGGACCTCGACCCTGAGCTCTATCTCAGTGTACACGAC
CCCGCGGGCGCCCTCCAGGCTGCCTTCAGGCGGTATCCCCGGGGCGCCCCCGCACCACACTGCGAGATGA
GCCGCTTCGTGCCTCTCCCCGCCTCTGCGAAATGGGCCAGCGGCCTGACCCCCGCGCAGAACTGCCCGCG
GGCCCTGGATGGGGCTTGGCTGATGGTCAGCATATCCAGCCCAGTCCTCAGCCTCTCCAGCCTCTTGCGA
CCACAGCCAGAGCCTCAGCAGGAGCCTGTTCTCATCACCATGGCAACAGTGGTACTGACTGTCCTCACCC
ACACCCCTGCCCCTCGAGTGAGACTGGGACAAGATGCTCTGCTGGACTTGAGCTTTGCCTACATGCCCCC
CACCTCCGAGGCCGCCTCATCTCTGGCTCCGGGTCCCCCTCCCTTTGGGCTAGAGTGGCGACGCCAGCAC
CTGGGTAAGGGACATCTGCTCCTGGCTGCAACTCCTGGGCTGAATGGCCAGATGCCAGCAGCCCAAGAAG
GGGCCGTGGCATTTGCTGCTTGGGATGATGATGAGCCATGGGGCCCATGGACCGGAAATGGGACCTTCTG
GCTGCCTACAGTTCAACCCTTTCAGGAGGGCACCTATCTGGCCACCATACACCTGCCATACCTGCAAGGA
CAGGTCACCCTGGAGCTTGCTGTGTACAAACCCCCCAAAGTGTCCCTGATGCCAGCAACCCTTGCACGGG
CCGCCCCAGGGGAGGCACCCCCGGAATTGCTCTGCCTTGTGTCCCACTTCTACCCTTCTGGGGGCCTGGA
GGTGGAGTGGGAACTCCGGGGTGGCCCAGGGGGCCGCTCTCAGAAGGCCGAGGGGCAGAGGTGGCTCTCG
GCCCTGCGCCACCATTCCGATGGCTCTGTCAGCCTCTCTGGGCACTTGCAGCCGCCCCCAGTCACCACTG
AGCAGCATGGGGCACGCTATGCCTGTCGAATTCACCATCCCAGCCTGCCTGCCTCGGGGCGCAGCGCTGA
GGTCACCCTGGAGGTAGCAGGTCTTTCAGGGCCCTCCCTTGAGGACAGCGTAGGCCTTTTCCTGTCTGCC
TTTCTTCTGCTTGGGCTCTTCAAGGCACTGGGCTGGGCTGCTGTCTACCTGTCCACCTGCAAGGATTCAA
AGAAGGTACAGTGCTCCACCTCTCTGTATCTTTCCCTTGTCACTTTATCTCCTCATCCTATCTCAAAACC
CATGGAGGGAGGCTGCTGGTGTGGTAGGCAGAACCTAGGCTTGGAATTCACACTGATCTGGGTTAAAACC
TGGCACTATATCCTAACTGTAGGACTCTTTGAGCATGCTACT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC219599 representing NM_172208
Red=Cloning site Green=Tags(s)

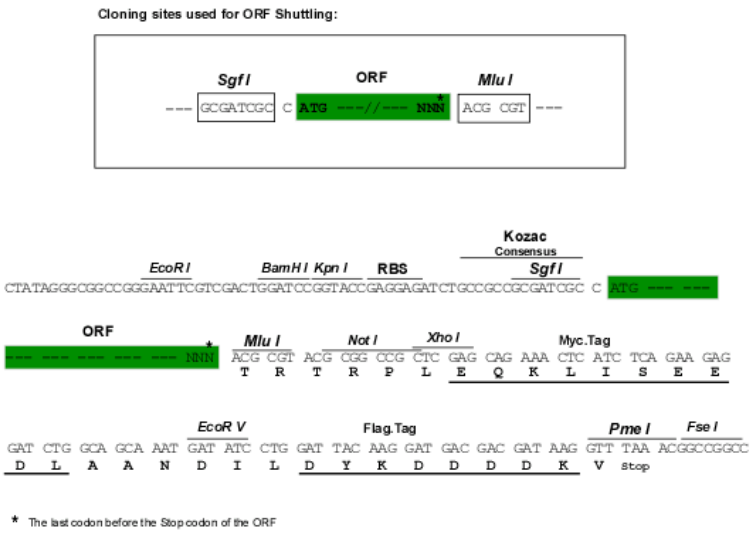
MKSLSLLLAVALGLATAVSAGPAVIECWFVEDASGKGLAKRPGALLLRQGPGEPPPRPDLDPELYLSVHD
PAGALQAAFRRYPRGAPAPHCEMSRFVPLPASAKWASGLTPAQNCPRALDGAWLMVSISSPVLSLSSLLR
PQPEPQQEPVLITMATVVLTVLTHTPAPRVRLGQDALLDLSFAYMPPTSEAASSLAPGPPPFGLEWRRQH
LGKGHLLLAATPGLNGQMPAAQEGAVAFAAWDDDEPWGPWTGNGTFWLPTVQPFQEGTYLATIHLPYLQG
QVTLELAVYKPPKVSLMPATLARAAPGEAPPELLCLVSHFYPSGGLEVEWELRGGPGGRSQKAEGQRWLS
ALRHHSDGSVSLSGHLQPPPVTTEQHGARYACRIHHPSLPASGRSAEVTLEVAGLSGPSLEDSVGLFLSA
FLLLGLFKALGWAAVYLSTCKDSKKVQCSTSLYLSLVTLSPHPISKPMEGGCWCGRQNLGLEFTLIWVKT
WHYILTVGLFEHAT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** https://cdn.origene.com/chromatograms/mk8050_e07.zip

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_172208

**ORF Size:** 1067 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_172208.2, NP_757345.2

**RefSeq Size:** 2404 bp

**RefSeq ORF:** 1515 bp

**Locus ID:** 6892

**UniProt ID:** O15533

**Cytogenetics:** 6p21.32

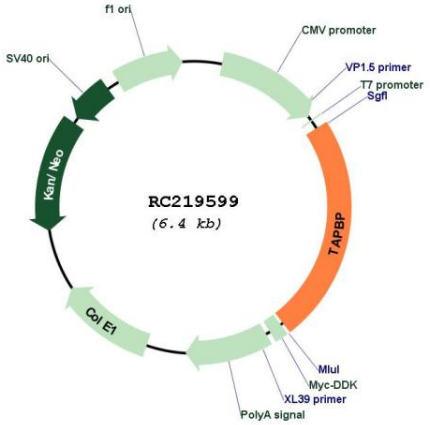
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Antigen processing and presentation

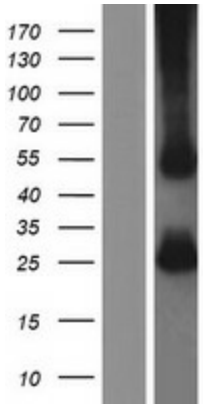
**MW:** 51.9 kDa

**Gene Summary:** This gene encodes a transmembrane glycoprotein which mediates interaction between newly assembled major histocompatibility complex (MHC) class I molecules and the transporter associated with antigen processing (TAP), which is required for the transport of antigenic peptides across the endoplasmic reticulum membrane. This interaction is essential for optimal peptide loading on the MHC class I molecule. Up to four complexes of MHC class I and this protein may be bound to a single TAP molecule. This protein contains a C-terminal double-lysine motif (KKKAE) known to maintain membrane proteins in the endoplasmic reticulum. This gene lies within the major histocompatibility complex on chromosome 6. Alternative splicing results in three transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]

## Product images:




Circular map for RC219599




Western blot validation of overexpression lysate (Cat# [LY406739]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219599 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).