

Product datasheet for **RC222359**

TPSG1 (NM_012467) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: TPSG1 (NM_012467) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: TPSG1
Synonyms: PRSS31; TMT; trpA
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC222359 representing NM_012467
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCCCTTGGGCGCTGTGGCCTCCTGCTGCTCCTGGCTGTGCCCGGTGTGTCCCTCAGGACTTTGCAGC
 CAGGGTGTGGCCGGCCGAGGTTTCGGATGCAGGCGCCGGATCGTGGGGGTACAGCTGCCCGGCCGG
 CGCATGGCCATGGCAGGCCAGCCTCCGCCTGCGGAGGATGCACGTGTGCGGCGGGTCACTGCTCAGCCCC
 CAGTGGGTGCTCACAGCTGCCACTGCTTCTCCGGTCCCTGAACATCCGACTACCAGGTGCACCTGG
 GGAAGTGGAGATCACTTTGTCTCCCCTTCTCCACCGTGAGGCAGATCATCTGCCTCCAGCCCTC
 AGGACAGCCGGGACAGCGGGGACATCGCCCTGGTGGAGCTCAGTGTCCCGTGACCCTCTCCAGCCGG
 ATCCTGCCCGTCTGCCTCCCGGAGGCTCAGATGACTTCTGCCCTGGGATCCGGTCTCGGTGACCGGCT
 GGGGCTATACGCGGGAGGAGAGCCTCTGCCACCCCGTACAGCCTGCGGGAGGTGAAAGTCTCCGTGGT
 GGACACAGAGACCTGCCGCGGGACTATCCCGGCCCGGGGCGAGCATCCTTCAGCCCGACATGCTGTGT
 GCCCGGGCCCGGGGATGCCTGCCAGGACGACTCCGGGGGCTCTGGTCTGCCAGGTGAACGGTGCCT
 GGGTGCAGGCTGGCATTGTGAGCTGGGGTGAAGGCTGCGGCCGCCAACAGGCCGGGAGTCTACACTCG
 TGTCCCTGCCTACGTGAAGTGGATCCCGGCCACATCACAGCATCAGGGGGCTCAGAGTCTGGGTACCC
 AGGCTCCCCCTCCTGGCTGGCTTCTTCTCCCGGCTCTTCTTCTGCTAGTCTCCTGTGCTCCTGCTGG
 CCAAGTGCCTGCTGCACCCATCTGCGGATGGTACTCCCTCCCGCCCTGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC222359 representing NM_012467
Red=Cloning site Green=Tags(s)

MALGACGLLLLLAVPGVSLRTLQPGCGRPQVSDAGGRIVGGHAAPAGAWPWQASLRRLRRMHVCGGSLLSP
 QWVLTAAHCFSGSLNSSDYQVHLGELEITLSPHFSTVRQIILHSSPSGQPGTSGDIALVELSVPVTLSSR
 ILPVCLPEASDDFCPGIRCSVTGWGYTREGEPLPPYSLREVKVSVDVDETCCRDPYGPGGGILQPDMLC
 ARGPGDACQDDSGGPLVCQVNGAWVQAGIVSWGEGCRPNRPGVYTRVPAYVNWIRRHITASGGSESGYP
 RLPLLAGFFLPLGLFLLL VSCVLLAKCLLHPSADGTPFPAPD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6173_g10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_012467

ORF Size: 963 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_012467.4](#)

RefSeq Size: 1124 bp

RefSeq ORF: 966 bp

Locus ID: 25823

UniProt ID: [Q9NRR2](#)

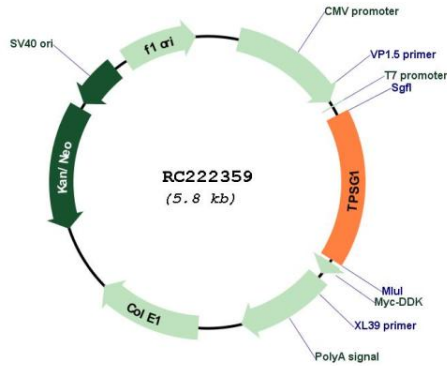
Cytogenetics: 16p13.3

Protein Families: Druggable Genome, Transmembrane

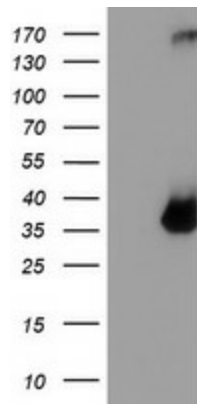
MW: 33.76 kDa

Gene Summary: Tryptases comprise a family of trypsin-like serine proteases, the peptidase family S1. Tryptases are enzymatically active only as heparin-stabilized tetramers, and they are resistant to all known endogenous proteinase inhibitors. Several tryptase genes are clustered on chromosome 16p13.3. There is uncertainty regarding the number of genes in this cluster. Currently four functional genes - alpha I, beta I, beta II and gamma I - have been identified. And beta I has an allelic variant named alpha II, beta II has an allelic variant beta III, also gamma I has an allelic variant gamma II. Beta tryptases appear to be the main isoenzymes expressed in mast cells; whereas in basophils, alpha-tryptases predominant. This gene differs from other members of the tryptase gene family in that it has C-terminal hydrophobic domain, which may serve as a membrane anchor. Tryptases have been implicated as mediators in the pathogenesis of asthma and other allergic and inflammatory disorders. [provided by RefSeq, Jul 2008]

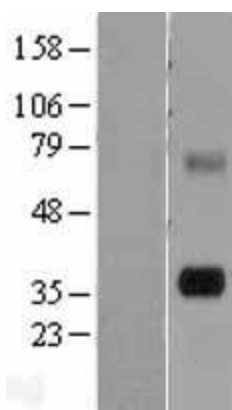
Product images:



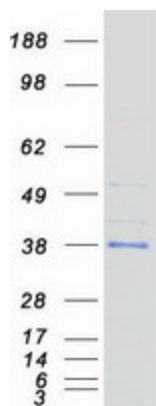
Circular map for RC222359



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TPSG1 (Cat# RC222359, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TPSG1 (Cat# [TA504161]). Positive lysates [LY402219] (100ug) and [LC402219] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402219]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222359 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TPSG1 protein (Cat# [TP322359]). The protein was produced from HEK293T cells transfected with TPSG1 cDNA clone (Cat# RC222359) using MegaTran 2.0 (Cat# [TT210002]).