

Product datasheet for **RG214661**

TPSB2 (NM_024164) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: TPSB2 (NM_024164) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: TPSB2
Synonyms: TPS2; tryptaseB; tryptaseC
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG214661 representing NM_024164
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGCTGAATCTGCTGCTGCTGGCGCTGCCCGTCTGGCGAGCCGCGCCTACGCGGCCCTGCCAGGCC
 AGGCCCTGCAGCGAGTGGGCATCGTTGGGGTCTCAGGAGGCCCCAGGAGCAAGTGGCCCTGGCAGGTGAG
 CCTGAGAGTCCGCGACCGATACTGGATGCACTTCTGCGGGGGCTCCCTCATCCACCCCACTGGGTGCTG
 ACCGCAGCGCACTGCGTGGGACCGGACGTCAAGGATCTGGCCGCCCTCAGGGTCAACTGCGGGAGCAGC
 ACCTCTACTACCAGGACCAGCTGCTGCCGGTCTCAGCAGGATCATCGTGCACCCACAGTTCTACACCGCCA
 GATCGGAGCGGACATCGCCCTGCTGGAGCTGGAGGAGCCGGTGAACGTCTCCAGCCACGTCCACACGGTC
 ACCCTGCCCCCTGCCTCAGAGACCTTCCCCCGGGGATGCCGTGCTGGGTCACTGGCTGGGGCGATGTGG
 ACAATGATGAGCGCCTCCACCGCCATTTCTCTGAAGCAGGTGAAGTCCCCATAATGGAAAACCAT
 TTGTGACGCAAAATACCACCTTGGCGCTACACGGGAGACGACGTCCGCATCGTCCGTGACGACATGCTG
 TGTGCCGGGAACACCGGAGGGACTCATGCCAGGGCGACTCCGGAGGGCCCTGGTGTGCAAGGTGAATG
 GCACCTGGCTGCAGGCGGGCGTGGTCACTGGGGCGAGGGCTGTGCCAGCCCAACCGCCCTGGCATCTA
 CACCCGTGCACCTACTACTTGGACTGGATCCACCACTATGTCCCCAAAAGCCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG214661 representing NM_024164
 Red=Cloning site Green=Tags(s)

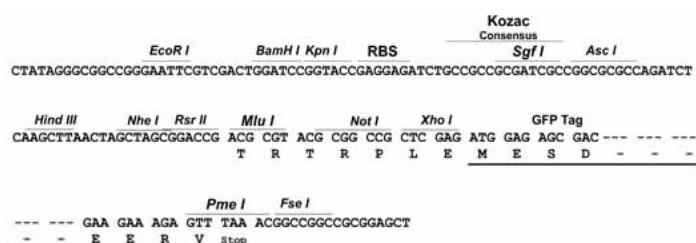
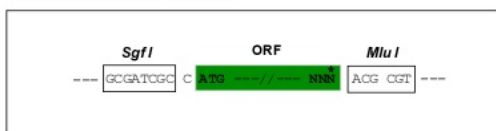
```
MLNLLLLALPVLASRAYAAPAGQALQRVGIVGGQEAPRSKWPQVSLRVRDRYWMHFCGGSLIHPQWVL
TAAHCVGPDVKDLAALRVQLREQLHYDQQLLPVSRIIVHPQFYTAQIGADIALLEEEPVNVSSHVHTV
TLPPASETFFPPGMPWCWVTGWGDVDNDERLPPFPLKQVKVPI MENHICDAKYHLGAYTGDDVRIVRDDML
CAGNTRRDSCQGDSSGGLVCKVNGTWLQAGVVSWGEGCAQPNRPGIYTRVITYLLDWIHHYVPKKP
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_024164

ORF Size: 825 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_024164.6](#)

RefSeq Size: 1165 bp

RefSeq ORF: 828 bp

Locus ID: 64499

UniProt ID: [P20231](#)

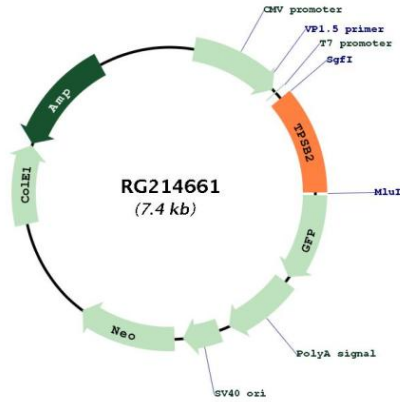
Cytogenetics: 16p13.3

Domains: Tryp_SPC

Protein Families: Druggable Genome, Secreted Protein

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. These genes are characterized by several distinct features. They have a highly conserved 3' UTR and contain tandem repeat sequences at the 5' flank and 3' UTR which are thought to play a role in regulation of the mRNA stability. These genes have an intron immediately upstream of the initiator Met codon, which separates the site of transcription initiation from protein coding sequence. This feature is characteristic of tryptases but is unusual in other genes. The alleles of this gene exhibit an unusual amount of sequence variation, such that the alleles were once thought to represent two separate genes, beta II and beta III. Beta tryptases appear to be the main isoenzymes expressed in mast cells, whereas in basophils, alpha-tryptases predominate. 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 RG214661