

## Product datasheet for **MG207852**

### **Tmprss2 (NM\_015775) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Tmprss2 (NM_015775) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tmprss2
Synonyms:	D16Ertd61e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG207852 representing NM\_015775  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCATTGAACTCAGGGTCACCTCCAGGAATCGGACCTTGCTATGAGAACCACGGGTATCAGTCTGAGC  
 ACATCTGTCTCCGAGACCACAGTGGCTCCCAATGGCTACAACCTTGATCCAGCCCACTACTACCCATC  
 TCCAGTGCCTCAGTATGCTCCGAGGATTACAACGCAAGCCTCAACATCTGTCATCCACACATCCCAAG  
 TCCTCAGGAGCACTGTGCACCTCAAAGTCTAAGAAATCGCTGTGTTAGCCCTCGCCCTGGGCACTGTCC  
 TCACGGGAGCTGCTGTGGCTGCTGCTTCTGCTTTGGAGGTTCTGGGACAGCAACTGTTCTACGTCTGAGAT  
 GGAGTGTGGGTCTTCAGGCACATGCATCAGCTCTTCTCTGCTGTGACGGGTAGCACATTGTCCCAAC  
 GGAGAAGATGAGAACCGTTGTGTCGTCTACGGACAAAGCTTCATCCTCCAGGTTTACTCATCTCAGA  
 GGAAGCCTGGTATCCCCTGTGCCAGGATGATTGGAGTGAGAGCTACGGGAGAGCAGCATGTAAGACAT  
 GGGATACAAGAACAATTTTTATTCTAGCCAAGGGATACCAGACCAGAGCGGGCAACGAGCTTTATGAAG  
 CTGAATGTGAGCTCAGGCAACGTTGACCTCTATAAAAACTCTACCACAGTGACTCATGTTTCATCCCGCA  
 TGGTGGTTTTCTTTCGCGCTGTATAGAATCGCGGGTTCGCTCAGTGAACCGCAGAGCAGGATTGTGGGTGG  
 ATTGAATGCCTCACCGAGACTGGCCCTGGCAGGTGACGCTGCACGTCCTCAAGGCGTCCAGTCTGCGGA  
 GGCTCCATCATACCCCCGAGTGGATTGTGACGGCCGCCACTGTGTGGAAGAACCCTCAGCAGCCCGA  
 GGTAAGTGGACGGCATTTCGCGGAATTCGAGACAGTCTCTCATGTTCTATGGAAGTAGACACCAGGTAGA  
 AAAAGTAAATTTCCCATCCAAATACGACTCTAAGACCAAGAATAACGACATTGCTCTCATGAAGTGCAG  
 ACACCTTTGGCTTTTAAATGATCTAGTGAAGCCAGTGTGCTGCCGAACCCAGGCATGATGCTAGACCTAG  
 ACCAGGAATGCTGGATTCGGGGTGGGGGCCACCTATGAGAAAGGGAAGACCTCGGACGTGTTGAATGC  
 TGCATGGTACCCTTGATCGAGCCCTCCAATGTAATAGTAAATACATATAACAACAACCTAATCACACCA  
 GCCATGATCTGTGCCGGCTTCTCCAGGGTCTGTGACTCTTCCAGGGAGACAGTGGAGGGCCGCTGG  
 TTAATTTGAAGAATGGGATCTGGTGGCTGATTGGGGACACGAGCTGGGGCTCGGGCTGTGCCAAGGCACT  
 CAGACCTGGAGTATACGGGAACGTGACGGTATTTACAGATTGGATCTACCAGCAATGAGGGCGAACAGC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG207852 representing NM\_015775  
 Red=Cloning site Green=Tags(s)

MALNSGSPPGIGPCYENHGYQSEHICPPRPPVAPNGYNLYPAQYYPSPVPQYAPRITTQASTSVIHHPK  
 SSGALCTSKSKSLCLALALGTVLTGAAVAALLWRFWDSNCSTSEMECGSSGTCISSSLWCDGVAHCPN  
 GEDENRCVRLYGQSFILQVYSSQRKAWYPVCQDDWSESYGRAACKDMGYKNNFYSSQGIPDQSGATSFMK  
 LNVSSGNVDLYKKLYHSDSCSSRMVSLRCIECGVRSVKRQSRIVGLNASPGDWPQVSLHVQGVHVCG  
 GSIITPEWIVTAAHCVEEPLSSPRYWTFAGILRQSLMFYGSRHQVEKVISHPNYDSKTKNNDIALMKLQ  
 TPLAFNDLVKPVCLPNPGMMLDLQECWISGWGATYEKGTSDVLNAAMVPLIEPSKCNISKYIYNLITP  
 AMICAGFLQGSVDSCQDSSGGPLVTLKNGIWWLIGDTSWGSCKAKALRPGVYGNVTVFTDWIYQQMRANS

**TRTRPLE** - GFP Tag - V

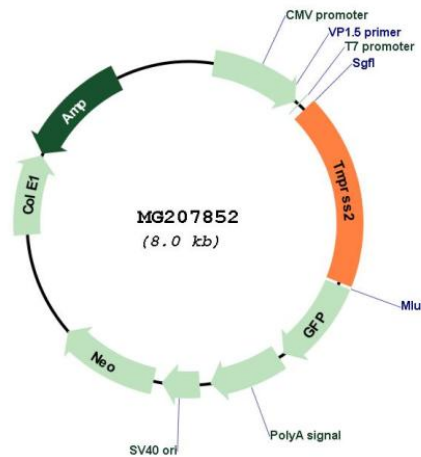
**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



Plasmid Map:



ACCN: NM\_015775

ORF Size: 1470 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\\_015775.2](#), [NP\\_056590.2](#)

**RefSeq Size:** 3175 bp

**RefSeq ORF:** 1473 bp

**Locus ID:** 50528

**UniProt ID:** [Q9JIQ8](#)

**Cytogenetics:** 16 57.53 cM

**Gene Summary:** Serine protease that proteolytically cleaves and activates the viral spike glycoproteins which facilitate virus-cell membrane fusions. The spike proteins are synthesized and maintained in precursor intermediate folding states and proteolysis permits the refolding and energy release required to create stable virus-cell linkages and membrane coalescence. Facilitates human SARS coronavirus (SARS-CoV) infection via two independent mechanisms, proteolytic cleavage of ACE2, which might promote viral uptake, and cleavage of coronavirus spike glycoprotein which activates the glycoprotein for cathepsin L-independent host cell entry. Proteolytically cleaves and activates the spike glycoproteins of human coronavirus 229E (HCoV-229E) and human coronavirus EMC (HCoV-EMC) and the fusion glycoproteins F0 of Sendai virus (SeV), human metapneumovirus (HMPV), human parainfluenza 1, 2, 3, 4a and 4b viruses (HPIV). Essential for spread and pathogenesis of influenza A virus (strains H1N1, H3N2 and H7N9) and is involved in proteolytic cleavage and activation of hemagglutinin (HA) protein which is essential for viral infectivity.[UniProtKB/Swiss-Prot Function]