

## Product datasheet for **RG201738**

### Thimet Oligopeptidase (THOP1) (NM\_003249) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Thimet Oligopeptidase (THOP1) (NM_003249) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Thimet Oligopeptidase
Synonyms:	EP24.15; MEPD_HUMAN; MP78; TOP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG201738 representing NM\_003249  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGAAGCCCCCGCAGCCTGTGCAGGAGACATGGCGGACGCAGCATCTCCGTGCTCTGTGGTAAACGACC  
TGCAGTGGGACCTGAGTGCACAGCAGATAGAGGAGCGCACCCAGGAGCTCATCGAGCAGACCAAGCGCGT  
GTATGACCAGGTTGGCACCCAGGAGTTTGGAGCGTGTCTACGAGAGCACGCTCAAGGCCTGGCCGAT  
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GGTGTCTGAACAGCAAGGTTGGCATGGATTACAGAAGCTGCATCCTGAGACCCGGCGGTTCCGAGGATG  
CCAGCGCCATGCTGAGGCGCTTCTGGGCCGTGACCCCAAGCAGGACGCCTTCTCTGAGCAAGGGGCT  
GCAGGTGCGGGGCTGCGAGCCCGAGCCGACGGTCTGC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG201738 representing NM\_003249  
Red=Cloning site Green=Tags(s)

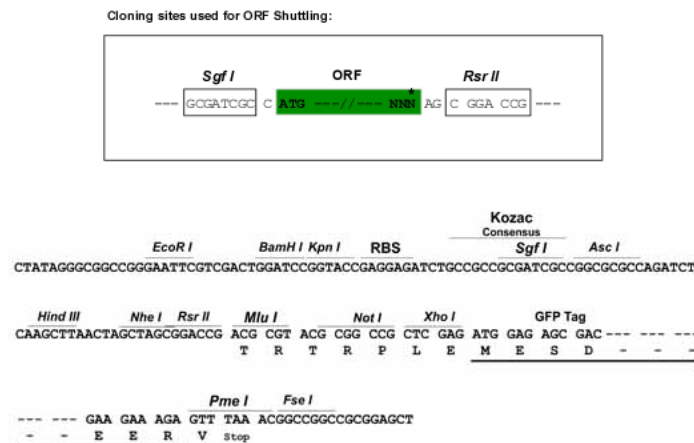
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YLERLIKLGRRNGLHLPRETQENIKRIKKKLSLLCIDFNKLNEDTTFLPFTLQELGGLPEDFLNSLEKM
EDGKLVTLKYPHYFP LLKKCHVPETRRKVEEAFNCRCKEENCAILKELVTLRAQKSRLLGFHTHADYVL
EMNMAKTSQTVATFLDELAQK LKPLGEQERAVILELKRAECERRGLPFDGRIRAWDMRYMNVQVEETRYC
VDQNL LKEYFPVQV VTHGLLGIYQELLGLAFHHEEGASAWHEDVRLYTARDAASGEVVGK FYLDLYPREG
KYGHAACFGLQPGCLRQDGS RQIAIAAMVANFTKPTADAPSL LQHDEVET YFHEFGHVMHQLCSQAEFAM
FSGTHVERDFVEAPSQMLEN WVWEQEPLL RMSRHYRTGS AVPRELLEKLIESRQANTGLFNLRQIVLAKV
DQALHTQTDADPAEEYARLCQEILGVPATPGTNMPATFGHLAGGYDAQYYGYLWSEVYSMDMFHTRFKQE
GVLNSKVGMDYRSCILRPGGSEDASAMLR RFLGRDPKQDAFLLSKGLQVGGCEPEPQVC
    
```

SGPTRRRLE - GFP Tag - V

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**ACCN:** NM\_003249

**ORF Size:** 2067 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\\_003249.5](#)

**RefSeq Size:** 2568 bp

**RefSeq ORF:** 2070 bp

**Locus ID:** 7064

**UniProt ID:** [P52888](#)

**Cytogenetics:** 19p13.3

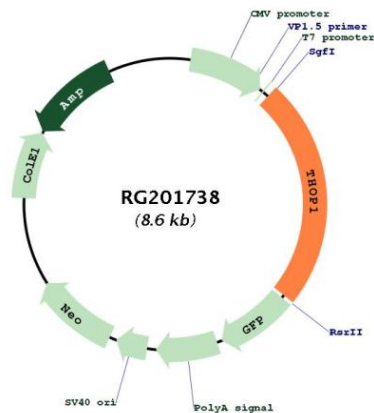
**Domains:** Peptidase\_M3

**Protein Families:** Druggable Genome, Protease

**Protein Pathways:** Renin-angiotensin system

**Gene Summary:** The protein encoded by this gene is a kininase that uses zinc as a cofactor. The encoded oligopeptidase cleaves cytosolic peptides, making them unavailable for display on antigen-presenting cells. This protein also cleaves neuropeptides under 20 aa in length and can degrade beta-amyloid precursor protein to amyloidogenic peptides. [provided by RefSeq, Nov 2015]

## Product images:



Circular map for RG201738