

## Product datasheet for **MG210046**

### Thop1 (NM\_022653) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Thop1 (NM_022653) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Thop1
Synonyms:	A1131655; A1327041; EP24.15
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>MG210046 representing NM\_022653  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGAAGCCCCCGCAGCCTGTGCTGGGACGTGGTGGATGCAGCATCCCCAGCCTCCACTGTGAATCATC  
TTCGCTGGGATCTGAGCGCACAGCAGATCAGGGCTCTAACCACGCAGCTCATCGAGCAGACCAAGTGTG  
GTACGACCGAGTGGGTGCTCAGAACTTCGAGGATGTGTCGTATGAGAGCACACTGAAGGCACTGGCTGAC  
GTGGAGGTACCTACACAGTGCAGAGGAACATTCTCGACTTCCCCAACACGTGTCCCCGTGCAAGGACA  
TCCGTGCAGCCAGCACAGAGGCTGACAAGAAGCTCTGGAGTTTGTATGTAGAGATGAGCATGAGACAGGA  
CGTGTACCAGAGGGTCTGTGGCTGCAGGAGAAAACCCGAAAGATTCCCTGAAGCTGAAGCAGCTCGC  
TACCTGGAGCGGCTCATCAAGCTGGGCCGAGAAACGGCTCCACTTACCTCAGGACACACAAGAGAAGA  
TCAAGAACATCAAGAAGAGGCTGAGCCTGCTGTGCATCGACTTCAACAAGAACCTCAACGAGGACACCAC  
CTTCTGCCCTTACAAGAGAGGAGCTGGGTGGGCTCCCGAGGACTTTCTGAGCTCTCTGGAGAAGGCA  
GAGGATGGCAAGCTGAAGGTACCCCTCAAGTACCCTCACTACTTCCCGCTGTTGAAGAAGTGCCATGTGC  
CAGAGACACGACGCCCTGTTGGAGGAGGCCTTCAACTGTCGCTGCAAGGAGGAGAAGTGTGCAATTCTGAA  
GGAGCTAGTGTCCCTGCGAGCACAGAAGTCCAGCCTGTTGGGGTCCACACACACGCGGACTACGTCCTG  
GAGATGAACATGGCCAAGACCAGTCAAACAGTAGCCACCTTCTAGATGAGCTGGCACAGAAGCTGAAGC  
CCCTGGGTGAGCAGGAGCGCGGGTCACTCTGGAGCTGAAGGAGGAGAGTGCGCCAAGCGGGGACTGCC  
ATTCGACGGGCGCATCCACGATGGGACATGCGCTACTACATGAACCAGGTGGAGGAGACTCGCTATCGT  
GTGGACCAGAACCTGCTGAAGGAGTACTCCCCATGCAGGTGGTACACGTGGGCTGCTGGCCATCTACC  
AAGAGCTGCTGGGGTGACCTTACGCTGGAGGAAGGTGCCGCTGCCTGGCAGGAGACGTGCGGCTCTA  
CTCAGTGCGGGACGCGCCTCTGGAGAGGAGATCGGCAAGTTCTACCTCGACCTATACCCAGGGAAGGG  
AAATATGGCCATGCAGCCTGCTTTGGCCTGCAGCCTGGCTGCCTACGGCAGGATGGCAGCCGGCAGCTGG  
CCGTGCGACCCATGGTGGCCAATTTACGAAGCCACACCTGACGCGCCGTCCTGCTGCAGCATGATGA  
GGTGGAGACCTACTTCCACGAGTTCGGGCACGTGCATGCACCAGCTGTGCTCGCAGGCGGAGTTTGCCATG  
TTCAGTGGGACCCAGTGGAGCGGGACTTTGTGGAGGCGCCGTCAGATGCTGGAGAAGTGGGTGTGGG  
AGAAGGAGCCCTGATGCGCATGTCTCAGCACTACCGCACGGGCAGCGAGGCCCTCAGGACCTCCTGGA  
GAAGCTCATCAAGTCTCGCCAGGCAATGCAGGTCTTCAACCTGCGGCAGATTGTGCTTGCCAAGGTG  
GATCAGGTCTGCACACACAGACAGACGACAGCCGGCTGAGGAATATGCCCGGCTCTGCCAAGAGATCC  
TCGGGGTGCCAGCCACACCAGGTACCAACATGCCAGCCACTTTCGGCCACCTAGCTGGCGGCTATGATGC  
TCAGTACTATGGTACTTATGGAGCGAAGTGTACTCGATGGACATGTTCCACACACGCTTCAAGCAAGAG  
GGTGTGCTTAGCCCCAAGGTTGGCATGGACTACAGGACCAGCATCCTGAGGCCAGGGGGCTCTGAGGACG  
CCAGCGCCATGCTGAAGCAGTTCCTGGGCCGACCCCAAGCAGGACGCCTTCTCTGAGCAAGGGTCT  
GCAGGTGGAGGGCAGCGAGGCGCCTGCGTGC

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG210046 representing NM\_022653  
 Red=Cloning site Green=Tags(s)

MKPPAACAGDVVDAASPASTVNHLRWDL SAQQIRALTTQLIEQTKCVYDRVGAQNFEDVSYESTLKALAD  
 VEVTYTVQRNILDFPQHVSPCKDIRAASTEADKKLSEFDVEMSMRQDVYQRVVWLQEKTPKDSLKPEAAR  
 YLERLIKLGRRNGLHLPQDTQEIKNIKKRLSLLCIDFNKLNEDTTFLLPFTREELGGLPEDFLSSLEKA  
 EDGKLVTLKYPHYFPLLLKCHVPETRRLLLEAFNCRCKEENCAILKELVSLRAQKSSLLGFHTHADYVL  
 EMNMAKTSQTVATFLDELAQKLKPLGEQERAVILELKEAECARGLPFDGRIHAWDMRYMNVQVEETRYR  
 VDQNLKKEYFPMQVVTGRLLAIYQELLGLTFTLEEGAAAWHEDVRLYSVRDAASGEEIGKFYLDLYPREG  
 KYGHAACFGLQPGCLRQDGRQLAVAAMVANFTKPTDAPSLQLHDEVETVYHEFGHVMHQLCSQAEFAM  
 FSGTHVERDFVEAPSQMLENVVWEKEPLMRMSQHYRTGSEAPQDLLEKLIKSRQANAGLNLRQIVLAKV  
 DQVLHTQTDADPAEEYARLCQEILGVPATPGTNMPATFGHLAGGYDAQYYGWLSEVYSMDMFHTRFKQE  
 GVLSPKVGMDYRTSILRPGGSEDASAMLKQFLGRDPKQDAFLLSKGLQVEGSEAPAC

TRTRPLE - GFP Tag - V

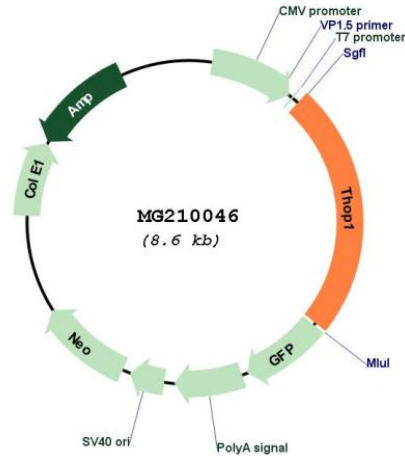
**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** NM\_022653

**ORF Size:** 2061 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\\_022653.2](#), [NP\\_073144.2](#)

**RefSeq Size:** 2717 bp

RefSeq ORF:	2064 bp
Locus ID:	50492
UniProt ID:	<u><a href="#">Q8C1A5</a></u>
Cytogenetics:	10 39.72 cM
Gene Summary:	Involved in the metabolism of neuropeptides under 20 amino acid residues long. Involved in cytoplasmic peptide degradation. Able to degrade the amyloid-beta precursor protein and generate amyloidogenic fragments (By similarity).[UniProtKB/Swiss-Prot Function]