

Product datasheet for **MG209815**

Thoc1 (NM_153552) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Thoc1 (NM_153552) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Thoc1
Synonyms:	3110002N20Rik; AW107452; NMP-84
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209815 representing NM_153552
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCCTCCGACGCCGGCGCTTTTCAGTTTGCCGGAGGCGCGGACGCGATTACGAAATCTACCAGAGAAG
 CCTTGAATAACAAAAATATCAAGCCGTTGTTGACTGCCTTCAGTCAGTTACCTGGCAGTGAAAAATGAAAA
 AAAATGTACCTTGACCAAGCTTTCAGAGGTGTTCTGGAAGAAGAAATTATAAATCATTCCGCATGTGAG
 AACGTTTTAGCTATTATTTCTCTTGCTATTGGGGAGTGACCGAAAGTGTGTGACTGCGTCCACACCAT
 TTGTGCTATTGGGAGATGCTTAGACTGCCTTCTTTGGATCAGTGTGACACAATATTCACCTTTTGTGA
 AAAAAATGTTGCTACTTGAAGTCAAATACATTCTATTCTGCTGGCAAAAATATTTACTGCGTATGTGC
 AATGATCTCCTCAGAAGATTGTCTAAATCTCAGAATACAGTTTTCTGTGGAAGAATTCAGCTCTTTTGG
 CCAGGCTTTTTCTCTATCTGAGAAATCAGGTCTTAATTTGCAGAGTCAGTTAACCTGGAAAACGTCAC
 TGTTTTCAATACAAACGAGCAGGAGAGCACCTGGGTGAGAAGCATAACCGAGGATAGAGAGGAAGGGATG
 GATGTAGAAGAAGGTGAAATGGGAGATGATGAAGCCCCGACAACCTGTTCTATTCCAATTGATTACAACC
 TGTATAGAAAATCTGGTCACTTCAGGATTACTTCAGGAACCCAGTACAATGCTATGAGAAGATTTCTTG
 GAAAACGTTTCTCAAGTATTCTGAAGAAGTTTTAGCTGTTTTTAAAAGTTATAAATTAGATGATACTCAA
 GCCTCCAGGAAAAAGATGGAAGAATTGAAAACAGGAGGAGAGCATGTATACTTCGCCAAGTTTCTAACGA
 GTGAAAAGTTGATGGATTTACAACCTGAGTGACAGTAACTTTCTGTCGACACATCCTGTTGCAGTATCTCAT
 TTTATTTCAATATCTCAAGGGACAGGTCAAATTCAAAAGTTCAAATATGTTTTAACTGATGAGCAATCA
 CTCTGGATTGAAGATACTACAAAATCAGTCTACCAACTGCTATCTGAAAAATCCCCCTGATGGAGAAAAGAT
 TTTCAAAGATGGTAGAGCATATATTAACACTGAGGAAAATTTGAACTCATGGAAGAATGAAGTTGCC
 AAGTTTTGTTAAAGAAAGAGCGTCAGATACCAAGCCACAAAGAGTGGTGAGGAAGAGAGCAGCCCCAGAA
 GACTTCTTAGGCAAAGGGCCCAACAAGAAAATCCTCATTGGAAAATGAGGAGCTACAAGGCTTTGGAATC
 TCTGCTCTGATAATATGGAAGCCTGTAATCAGAGACAAGAGAATACATGCCAACTTTGGAGGAGTCTT
 TGAAGAAGCTATTGAACAAGCAGATCCTGAAAACATGGTTGAAAGTGAATATAAGCCGTAATAATTCA
 AATTATGGATGGAGAGCTTTAGACTCTTAGCCCGGAGAAGCCCTCACTTCTTTCAGCCAACCAACCAGC
 AGTTTAAGAGTCTACCAGAGTATCTGGAAAACATGGTGATAAAGCTGGCCAAGGAACTACCACCCCTTC
 TGAAGAAATAAAGACAGGTGAGGATGAAGACGAGGAAGATAATGATGCTTTACTAAAGGAAAATGAAAGT
 CCAGATGTTCCGGCAGATAAACCTATAACAGGGGAGCAGATAGAGTCATTTGCCAACAACTTGGTGAGC
 AGTGAAGATTTTGGCTCCTTACCTGAAAATTAAGACTCTGATATTAGGAGATTGAGTGTGACAGTGA
 AGACATGAAGATGAGAGCCAAGCAGCTCCTTGTTCCTGGCAAGATCAAGAAGGAGTTTCATGCAACAAC
 GATAACCTGATTAGTGCATAAACAAGTCTGGATTAAGTGACCTTGCAGAAAAGTCTAACTAATGACACTG
 AAACAAACAGT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG209815 representing NM_153552
 Red=Cloning site Green=Tags(s)

MSPTPALFSLPEARTRFTKSTREALNNKNIKPLLTAFSQLPGENEKKCTLDQAFRGVLEEEIINHSA
 NVLAIISLAIGGVTE SVCTASTPFVLLGDVLDCLPLDQC DITFTFVEKNVATWKSNTFY SAGKNYLLRMC
 NDLLRRLSKSQNTVFCGR IQLFLARL FPLSEKSGLN LQSQFNLENVTVFNTNEQESTLGQKHTE DREEGM
 DVEEGEMGDDEAPTTCSIPIDYNLYRKFWSLQDYFRNPVQCYEKISWKTFLKYSEEVLAVFKSYKLD DDTQ
 ASRKKMEELKTGGEHVYFAKFLTSEKLM DLQLSDSNFRRHILLQYLILFQYLKGVKFKSSNYVL TDEQS
 LWIEDTTKSVYQLLSENPPDGERFSKMVEHILNTEENWNSWKNEGCPSFVKERASDTKPTRVVRKRAAPE
 DFLGKGP NKKILIGNEELTRLWNLCPDNMEACKSETREYMP TLEEFFEEAIEQADPENMVESEYKAVNNS
 NYGWRALRLLARRSPHFQPTNQ QFKSLPEYLENMVIKLAKELPPPSEEIKTGEDEDEEDNDALLKENES
 PDVRRDKPITGEQIESFANKLGEQWKILAPYLEIKDSDIRQIECDSEDMKMR AKQLLVAWQDQEGVHATT
 DNLISALNKSGLSDLAESLTNDTETNS

TRTRPLE - GFP Tag - V

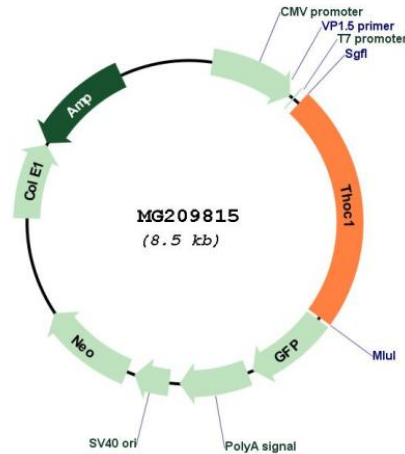
Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_153552

ORF Size: 1971 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_153552.1](#)

RefSeq Size: 3855 bp

RefSeq ORF: 1974 bp

Locus ID: 225160

UniProt ID: [Q8R3N6](#)

Cytogenetics: 18 A1

Gene Summary: Required for efficient export of polyadenylated RNA. Acts as component of the THO subcomplex of the TREX complex which is thought to couple mRNA transcription, processing and nuclear export, and which specifically associates with spliced mRNA and not with unspliced pre-mRNA. TREX is recruited to spliced mRNAs by a transcription-independent mechanism, binds to mRNA upstream of the exon-junction complex (EJC) and is recruited in a splicing- and cap-dependent manner to a region near the 5' end of the mRNA where it functions in mRNA export to the cytoplasm via the TAP/NFX1 pathway. Regulates transcriptional elongation of a subset of genes. Involved in genome stability by preventing co-transcriptional R-loop formation (By similarity).[UniProtKB/Swiss-Prot Function]