

Product datasheet for **MG223275**

Thoc5 (NM_172438) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Thoc5 (NM_172438) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Thoc5
Synonyms:	1700060C24Rik; A430085L24Rik; Fmip; PK1.3; Sgk2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG223275 representing NM_172438
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCATCAGAATCCAGCAAAAAACGAAACCCAAAGTATCCGGAGTATGGAACCCAACTGAAGGGA
 AACGGAACCGGTCTGACACGGAGCAGGAAGGCAATACTACAGTGAGGAGGCTGAAGTTGACCTGCGGGA
 CCCTGGCAGAGACTATGAGTTGTACAAATACACTTGCCAGGAACTACAAAGGCTGATGGCCGAGATCCAG
 GACCTGAAGAGCAAGGGCAGCAAGGACGTGGCCATTGAAATTGAAGAACGAAGGATCCAGAGCTGTGTGC
 ACTTCATGACTCTAAAGAAGCTTAACCGATTAGCCACATCAGGTTAAAGAAAGGAGAGACCAGACCCA
 CGAGGCCAAGCAGAAAGTCGATGCCTACCACCTACAGCTACAGAACCTGCTCTACGAAGTATGCACCTG
 CAGAAGGAGATACCAAAATGTCTGGAGTTCAAGTCAAAGCATGAAGAAATGATCTGGTCAGCTTAGAGG
 AATTTTATTCAGAGGCTCCACCAAGCATCAGCAAGGCCGAGATCACCATGGGAGACCCCTACCAACAAC
 ATTTGGCACGTTTGGACTGGGAGCTGGAGCAGCGAAAAGGCTGGCAGAAAAGTACCGAGAATGTCTGTCT
 AACAAAGGAGAAGATCCTGAAGGAGATTGAGGTGAAGAGGGACTATCTGAGCAGCCTCCAGCCTCGCCTCA
 ACAGCATCATGCAGGCTTCCCTGCCAGTGAAGAATACCTGTTCATGCCGTTTGACCAGGCGCACAAACA
 GTATGAGACTGCCAGGCACCTGCCGCCTCCCTCTATGTGCTCTTTGTGCAGGCCACTGCATACGGGCGAG
 GCCTGTGATAAGACGCTCTCCGTGGCAATTGAAGGCAGTGTGGACGAAGCCAAAGCTCTTTTCAAGCCCC
 CTGAGGACTCCCAAGATGATGAGAGCGACTCAGATGCTGAAGAGGAGCAGACGACGAAGCGGGCGGGCC
 CACTCTCGGGTTTCAGTTGGATGACAAGCGCAAGGAGATGCTAAAAAGGCACCCACTGTCTGTCTGCTG
 GATCTGAAGTGCAAAGACAACAGTGTGCTTCATCTGACTTTCTACTATCTCATGAACCTCAACATCATGA
 CAGTGAAAGCCAAAGTGACGACCCGCCGTGGAGCTGATCACCCCATCAGTGCAGGAGACTTACTGTCTCC
 TGACTCGGTCTTGAGCTGCTTGTATCCGGGAGATCATGGGAAAAAACTCCAAATCCAGCCAATCAGTAT
 CAGTTTGACAAAGTTGGCATCCTGACTTTGAGAGACTATGTACTTGAGTTAGGTCACCCCTACTTGTGGG
 TACAGAAGCTGGGTGGCCTCCACTTCCCAAGAGCAGCCCAGCAAACAGTATGCCTGACCACTCACA
 GAGCGCCAGCCACATGGAGACCACCATGAAACTGCTGAAGACCAGGGTACAGTCCCGCTGGCTCTCCAC
 AAACAGTTTGCATCTCTGGAACATGGCATTGTGCCGTACCAGCGATTGCCAGGACCTCTTCCCTGCCA
 AGGTTGTTTCTCGCCTGGTAAAGTGGGTGATAATTGCCCATGAAGATTACATGGAGCTGCACTTCACTAA
 GGACATTTGTGGAGGCAGGACTGGCCGGAGACCAATCTCTACTACCTGGCGCTAATTGAAAGGGGAACA
 GCTAAACTTCAGGCTGCTGTGGTACTAAACCTGGCTACTCCTCCATCCCACCGTTTTCCGACTCTGTC
 TAAACTGGAAAGGGGAGAAAACCAACAGCAACGATGACAATATTCGGGCTATGGAGAGTGAAGTCAACGT
 GTGCTATAAAGGAGTTGTGTGGCCCTCGGCCAGTACCAGCTCCTGACCAACCAGCTGCAGAGACTGTGT
 GTGCTGTGGACGTCTACCTGGAGACCGAGAGCCACGATGACAGCTTCGAGGGCCCCAAGGAGTTTTCCC
 AGGAGAAGATGTGCTGCGGCTTTTTAGGGGTCCGAGTAGGATGAAGCCGTTTAAATACAACCATCCCCA
 AGGTTTCTCAGCCACCGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG223275 representing NM_172438
 Red=Cloning site Green=Tags(s)

```
MSESSKKRKPVIKIRSDGTPTEGKRNRSDETEGKYYSEEAEVDLRDPGRDYELKYTCQELQRLMAEIQ
DLKSKGSKDVAIEIEERRIQSCVHFMTLKKLNRLAHIRLKKGRDQTHEAKQKVDAYHLQLQNLLEYVMHL
QKEITKCLEFKSKHEEIDLVSLEEFYSEAPPSISKAEITMGDPHQQTARLDWELEQRKRLAEKYRECLS
NKEKILKEIEVKRDYLSLQPRLNSIMQASLPVQEYLFMPFDQAHKQYETARHLPPPLYVLFVQATAYGQ
ACDKTLSVAIEGSVDEAKALFKPPEDSQDDESDSDAEETTKRRRPTLGVQLDDKRKEMLKRHPLSVLL
DLKCKDNSVLHLLTFYLLMNLNIMTVKAKVTTAVELITPII SAGDLLSPDSVL SCL YPGDHGKKTNPANQY
QFDKVGILTLRDYVLELGHYPYLWVQKLGGLHFPKEQPQQTVMPPDHSQSASHMETTMKLLKTRVQSRLALH
KQFASLEHGI VPTSDCQDL FPAKVVSRLVKWVI IAHEDY MELHF TKDIVEAGLAGDTNLYYALIERGT
AKLQAAVVLNPGYSSIPPVFRCLNWKGEKTSNDDNIRAMESEVNV CYKEL CGPRPSHQLL TNQLQRLC
VLLDVYLETESHDDSFEGPKEFPQEKMCLRLFRGPSRMKPFKYNHPQGFFSHR
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_172438

ORF Size: 2049 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_172438.3](#), [NP_766026.1](#)

RefSeq Size: 2235 bp

RefSeq ORF: 2052 bp

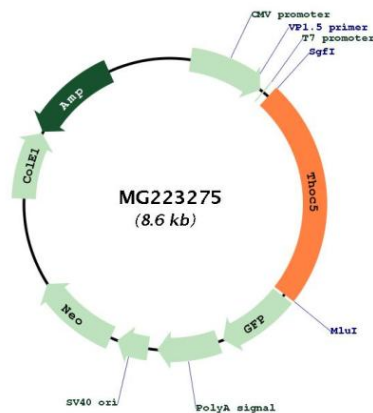
Locus ID: 107829

UniProt ID: [Q8BKT7](#)

Cytogenetics: 11 A1

Gene Summary: 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/NXF1 pathway. THOC5 in conjunction with ALYREF/THOC4 functions in NXF1-NXT1 mediated nuclear export of HSP70 mRNA; both proteins enhance the RNA binding activity of NXF1 and are required for NXF1 localization to the nuclear rim. Involved in transcription elongation and genome stability. Involved in alternative polyadenylation site choice by recruiting CPSF6 to 5' region of target genes; probably mediates association of the TREX and CFIm complexes. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG223275