

Product datasheet for **RG200382**

THOC5 (NM_001002878) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	THOC5 (NM_001002878) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	THOC5
Synonyms:	C22orf19; Fmip; fSAP79; PK1.3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG200382 representing NM_001002878
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCATCAGAATCGAGCAAAAAACGGAAGCCCAAAGTGATCCGAAGCGATGGAGCCCCAGCTGAAGGAA
 AGCGGAATCGATCTGACACCGAGCAGGAAGGTAATACTACAGTGAGGAGCCGAGGTGGATCTGCGGGA
 CCCTGGCAGAGACTATGAGTTATACAAGTACACCTGCCAGGAGCTACAGAGGCTGATGGCTGAGATCCAA
 GACCTGAAGAGCAGGGGTGGCAAGGATGTGGCAATAGAAATAGAAGAACGGAGGATCCAGAGCTGTGTGC
 ATTTTCATGACTCTAAAGAAGCTTAACCGATTAGCCACATCAGGTTGAAGAAAGGAGAGATCAGACCCA
 CGAGGCTAAGCAGAAAGTAGATGCCTATCATCTGCAGCTCCAGAACCTGTTGTATGAGGTGATGCACCTA
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 ACAGCATCATGCAGGCTTCCCTTCCGGTGCAGGAGTACCTGTTTATGCCATTCGACCAGGCTCACAAAGCA
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 GTGCTACAAGGAGCTGTGTGGCCCTGGCCAGCCACCAGCTGTTGACCAACCAGCTGCAGCGGCTGTGT
 GTGCTGTGGATGTTTACCTGGAGACCGAGAGCCATGACGACAGTGTGGAGGGGCCCAAGGAATTTCCCC
 AGGAGAAGATGTGTCTCGGGCTCTCAGGGTCTAGCAGGATGAAGCCATTTAAATACAACCATCTCA
 GGGATTCTTCAGCCATCGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG200382 representing NM_001002878
 Red=Cloning site Green=Tags(s)

MSESSKKRKP VIRSDGAPAEGKRNRS DTEQEGKY YSEAEVDLRDPGRDYEL YKYTCQELQRLMAEIQ
 DLKSRGGKDVAIEIEERRIQSCVHFMTLKKLNRLAHIRLKKGRDQTHEAKQKVDAYHLQLQNLLYEV MHL
 QKEITKCLEFKSKHEEIDLVSLEEFYKEAPPDISKAEVTMGDPHQQT LARLDWELEQRKRLAEKYRECLS
 NKEKILKEIEVKKEYLSSLQPRLNSIMQASLPVQEYLFMPFDQAHKQYETARHLPPPLYVLFVQATAYGQ
 ACDKTL SVAIEGSVDEAKALFKPPEDSQDDESDSDAEEEQTTKRRRPTLGVQLDDKRKEMLKRHPLSVML
 DLKCKDDSVLHHLTFYLLMNLNIMTVKAKVTTAMELITPI SAGDLLSPDSVL SCLYPGDHGKKT PNPANQY
 QFDKVGILTLSDYVLELGHYPYLWVQKLGGLHFPKEQPQQT VIADHSL SASHMETTMKLLKTRVQSRLALH
 KQFASLEHGIVPVTSDCQYLFPAKVVSRLVKWVTIAHEDY MELHF TKDIVDAGLAGDTNL YYMALIERGT
 AKLQAAVVLNPGYSSIPP I FQLCLNWKGEK TNSNDNIRAMEGEVNV CYKELCGPWP SHQLL TNQLQRLC
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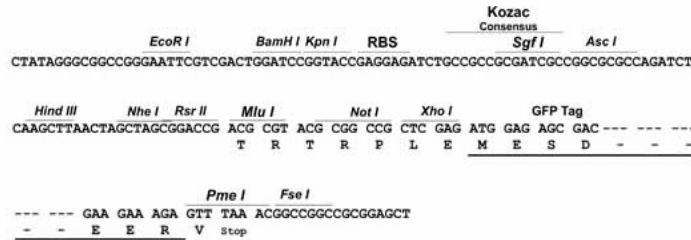
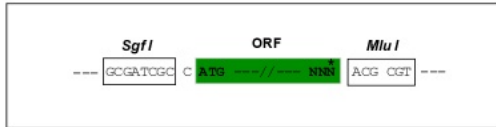
TRTRPLE - GFP Tag - V

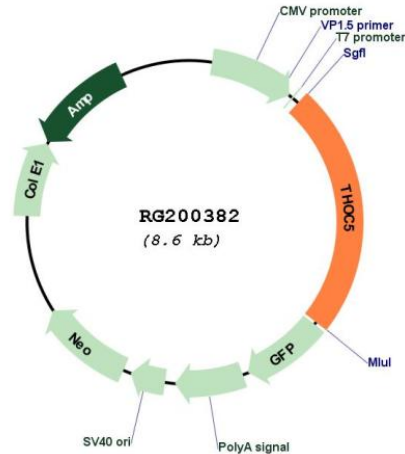
Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_001002878

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_001002878.1](#), [NP_001002878.1](#)

RefSeq Size: 2694 bp

RefSeq ORF: 2052 bp

Locus ID: 8563

UniProt ID: [Q13769](#)

Cytogenetics: 22q12.2

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/NFX1 pathway. The TREX complex is essential for the export of Kaposi's sarcoma-associated herpesvirus (KSHV) intronless mRNAs and infectious virus production. 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]