

Product datasheet for **RR201699**

Thoc5 (NM_001012153) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Thoc5 (NM_001012153) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Thoc5
Synonyms:	Fmip
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>RR201699 representing NM_001012153
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCATCAGAATCCAGCAAAAAAGGAAACCCAAAGTATCCGAAGTATGGAACCCAACTGAAGGGA
 AACGGAATCGATCTGACACAGAGCAGGAAGGCAGATACTATAGCGAGGAGGCTGAGGTTGACCTGCGGGA
 CCCCAGGACAGACTATGAGTTGTACAAGTACACTTGCCAGGAGCTACAGAGGTTGATGGCTGAGATCCAG
 GACCTGAAGAGCAAGGGCAGCAAGGACGTGGCCATTGAAATAGAAGAACGAAGGATCCAGAGCTGTGTGC
 ATTTTCATGACTCTAAAGAAGCTTAACCGATTAGCCCATATCAGGTTAAAGAAAGGAGAGATCAGACCCA
 CGAGGCCAAGCAGAAAGTCGATGCCTACCACCTACAGCTGCAGAACCTGCTCTACGAAGTATGCACCTG
 CAGAAGGAGATCACCAGTGTCTGGAGTCAAGTCAAAGCATGAAGAAATCGATCTGGTCAGTTTAGAGG
 AATTTTATTCAGAAGCTCCACCAACATCAGCAAGGCCGAGATCACCATGGGAGACCCCTACCAACAGAC
 GCTGGCACGTTTGGACTGGGAGCTGGAGCAGCGAAAAGGCTGGCAGAGAAGTACCGAGAGTGTCTGTCC
 AACAAAGGAGAAGATCCTGAAGGAGATCGAGGTGAAGAAGGAGTATCTCAGCAGCCTCCAGCCCCGCCTCA
 ACAGCATCATGCAGGCTTCCCTGCCGGTGAAGAGTACCTGTTTCATGCCATTTCGACCAGGCTCACAAAGCA
 GTACGAGACCGCCAGGCACCTGCCGCCTCCCTCTACGTGCTCTTTGTGCAGGCCACCGCATACGGGCGAG
 GCCTGTGATAAGACGTTGTCTGTGGCGATTGAAGGCAGTGTGGATGAAGCCAAAGCCCTTTTCAAGCCCC
 CCGAGGACTCCCAAGATGATGAGAGTACTCGGATGCTGAAGAGGAGCAGACCACGAGGCGTCGGCCAC
 ACTCGGGTTCAGTTGGATGATAAGCGCAAGGAGATGCTGAAAAGGCACCCGCTGTCTGTCTGTGGAT
 CTGAAGTGCAAAGACAACAGTGTGCTCCATCTGACTTTCTTCTATCTCATGAACCTCAACATCATGACAG
 TGAAAGCCAAAGTGACGACCGCCATGGAGCTGATCACCCCATCAGTGCAGGCGACTTACTGTCTCCTGA
 CTCGGTCTTGAGCTGCTTGTATCCTGGAGATCATGGAAAAGAAAACCTCAAATCCAGCCAATCAGTATCAG
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 AGAAGCTGGGTGGCTCCACTTCCCAAAGAGCAGCCCCAGCACACGGTATGGCTGACCACTCACAGAG
 CGCTAGCCACATGGAGACCACCATGAAACTGCTCAAGACTAGGGTACAGTCCCGCTGGCTCTCCACAAA
 CAGTTCGCATCTCTGGAACATGGCATTGTGCCAGTACCAGCGAGTGCAGTACCTTCCCTGCCAAGG
 TTGTTTCCGACTGGTAAAGTGGATGATAATGGCCATGAAGATTACATGGAGCTGCACTTCACTAAGGA
 CATTGTAGAGGCCGGCTGGCTGGGACACCAACCTCTACTACCTGGCGTTATCGAAAGGGGAACAGCT
 AAGCTTCAGGCTGCTGTGTTACTGAACCTGGCTACTCCTCCATCCCACCTGTTTTCCGACTCTGTCTAA
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 CTATCGGGAGCTCTGCGGCCCTCGGCCAGTACCAGCTCTTGACCAACCAGCTGCAGAGGCTGTGTGTG
 CTGCTGGATGTCTACCTGGAGACCAGAGCCATGATGACAGTGTAGAGGGCCCCAAGGAATTTCCCAGG
 AGAAGATGTGCCTGCGGCTCTTTAGGGTCCAAGTAGGATGAAGCCGTTTAAATAAACCACCTCAGGG
 ATTCTTCAGCCACCGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR201699 representing NM_001012153
 Red=Cloning site Green=Tags(s)

MSESSKKRKP VIRSDGTPTEGKRNRSDTEQEGRYSEEAEVDLRDPGRDYEL YKYTCQELQRLMAEIQ
 DLKSKGSKDVAIEIEERRIQSCVHFM LKLNRLAHIRLKKGRDQTHEAKQKVDAYHLQLQNLLYEVMLH
 QKEITKCLEFKSKHEEIDLVSLEEFYSEAPPNISKAIEITMGDPHQQTARLDWELEQRKRLAEKYRECLS
 NKEKILKEIEVKKEYLSSLQPRLNSIMQASLPVQEYLFMPFDQAHKQYETARHLPPPLYVLFVQATAYGQ
 ACDKTL SVAIEGSVDEAKALFKPPEDSQDDESDSDAEEEQTRRRRPTLGVLDDKRKEMLKRHPLSVLLD
 LKCKDNSVLHL TFFYLMNLNIMTVKAKVTTAMELITPISAGDLLSPDSVLSCLYPGDHGGKTPNPANQYQ
 FDKVGIL TLRDYVLELGHYPYLWVQKLGGLHFPKEQPQHTVMADHSQSASHMETTMKLLKTRVQSRLALHK
 QFASLEHGIVPVTSECQYLFPAKVVSRLVKWMI MAHEDY MELHFTKDIVEAGLAGDTNLYLALIERGTA
 KLQA AVL NPGYSSIPPVFR LCLNWKGEK TNSNDDNIRAMESEVNV CYREL CGPRPSHQLLTNQLQRLCV
 LLDVYLETESHDDSV EGPKEFPQEKMCLRLFRGPSRMKPFKYNHPQGFFSHR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

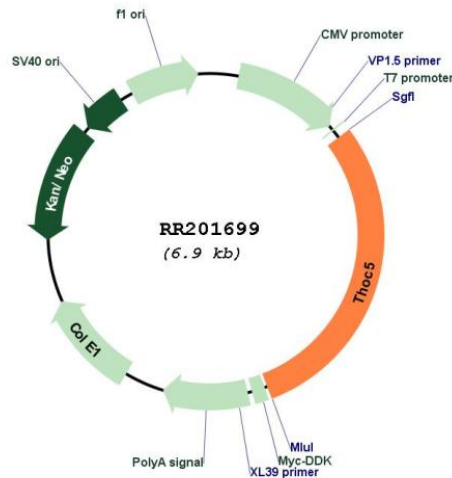
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001012153

ORF Size: 2046 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_001012153.1](#), [NP_001012153.1](#)

RefSeq Size: 2227 bp

RefSeq ORF: 2049 bp

Locus ID: 360972

UniProt ID: [Q68FX7](#)

Cytogenetics: 14q21

MW: 78.7 kDa

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 (By similarity).[UniProtKB/Swiss-Prot Function]