

Product datasheet for **SC117857**

THOC5 (NM_003678) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	THOC5 (NM_003678) Human Untagged Clone
Tag:	Tag Free
Symbol:	THOC5
Synonyms:	C22orf19; Fmip; fSAP79; PK1.3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC117857 sequence for NM_003678 edited (data generated by NextGen Sequencing)

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ATGTCATCAGAATCGAGCAAAAAACGGAAGCCCAAAGTGATCCGAAGCGATGGAGCCCCA
GCTGAAGGAAAGCGGAATCGATCTGACACCGAGCAGGAAGGTAATACTACAGTGAGGAG
GCCGAGGTGGATCTGCGGGACCTGGCAGAGACTATGAGTTATAACAAGTACACCTGCCAG
GAGCTACAGAGGCTGATGGCTGAGATCCAAGACCTGAAGAGCAGGGGTGGCAAGGATGTG
GCAATAGAAAATAGAAGAACGGAGGATCCAGAGCTGTGTGCATTTTCATGACTCTAAAGAAG
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CAGAAAAGTAGATGCCTATCATCTGCAGCTCCAGAACCTGTTGTATGAGGTGATGCACCTA
CAGAAGGAGATCACCAAATGTTTGGAGTTTAAAGTCAAAGCATGAAGAAATTGATCTGGTC
AGTTTAGAGGAGTTTATAAGGAGGCTCCACCAGATATCAGCAAGGCCGAAGTACCATG
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CTGGCAGAGAAGTACCGAGAGTGCCTATCTAACAAGGAGAAGATTCTCAAGGAGATTGAG
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GCCAGACACCTGCCGCCTCCCCTCTATGTCCTCTTTGTTTCAGGCCACTGGGTATGGGCAG
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CAGCTCTGTTTGAAGTGGAAAGGGGAGAAAACCAACAGCAACGATGACAACATTCGGGCC
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CTGTTGACCAACCAGCTGCAGCGGCTGTGTGTGCTGCTGGATGTTTACCTGGAGACCGAG
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CTCTTCAGGGTCTTAGCAGGATGAAGCCATTTAAATACAACCATCCTCAGGGATTCTTC
AGCCATCGCTGA
    
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Clone variation with respect to NM_003678.4
688 c=>n

5' Read Nucleotide Sequence: >OriGene 5' read for NM_003678 unedited
 GCACGAGGCGTTCTCTATGGTGC GCGGGCAAGCTTTGCTCCGCCTCCGGCAGTGGCTTA
 CTCCCGGTGCCAGGTTCTTGGAGCTGTGAGGAGGAACAACCATGTCATCAGAATCGAGCA
 AAAAACGGAAGCCCAAAGTGATCCGAAGCGATGGAGCCCCAGCTGAAGGAAAGCGGAATC
 GATCTGACACCGAGCAGGAAGGTAATACTACAGTGAGGAGGCCGAGGTGGATCTGCGGG
 ACCCTGGCAGAGACTATGAGTTATACAAGTACACCTGCCAGGAGCTACAGAGGCTGATGG
 CTGAGATCCAAGACCTGAAGAGCAGGGGTGGCAAGGATGTGGCAATAGAAATAGAAGAAC
 GGAGGATCCAGAGCTGTGTGCATTTTCATGACTCTAAAGAAGCTTAACCGATTAGCCACACA
 TCAGGTTGAAGAAAGGAAGAGATCAGACCCACGAGGCTAAGCAGAAAGTAGATGCCTATC
 ATCTGCAGCTCCAGAACCTGTTGTATGAGGTGATGCACCTACAGAAGGAGATCACCAAAT
 GTTTGGAGTTAAGTCAAAGCATGAAGAAATTGATCTGGTCAGTTTAGAGGAGTTTTATA
 AGGAGGCTCCAC

3' Read Nucleotide Sequence: >OriGene 3' read for NM_003678 unedited
 CGGCACGCAATCTAGTATCGAGTTTTTTTTTTTTTTTTTTTTTTTCAGGTGACGCTTTTTAATTG
 GCTGGTGTCTTTGGAGAATATCAAGAGTACATGTGGGCCAGAGCAGAAAGCAGAAGCCC
 AGTGCTCAGGGTGAAGCCTTGGGGAAACAACGGTCTGCGCGGGAGATCAGCGATGGCTG
 AAGAATCCCTGAGGATGGTTGTATTTAAATGGCTTCATCTGCTAGGACCCCTGAAGAGC
 CGCAGACACATCTTCTCCTGGGAAATTCCTTGGGCCCTCCACACTGTCGTCATGGCTC
 TCGGTCTCCAGGTAACATCCAGCAGCACACAGCCGCTGCAGCTGGTTGGTCAACAGC
 TGGTGGCTGGGCCAAGGGCCACACAGCTCCTTGTAGCACACATTGACTTCGCCCTCCATG
 GCCCGAATGTTGTATCGTTGCTGTTGGTTTTCTCCCCTTCCAGTTCAAACAGAGCTGG
 AAAACAGTGGGATGGAGGAGTAGCCAGGGTTCAACACCAGCGGCCTGCAGTTTGGCT
 GTGCCCTTTTCGATGAGCGCCATGTAGTAGAGATTGGTGTCCCCAGCCAGTCCCCGATCC
 ANCATGTCTTTGGTGAAGTGCAGCTCCATGNTATCCTCATGGNGCACTGTCAACCATTTT
 ACCAGGCGAGAGACAACCTTGGCAGGNAAGATGTACTGGNCATCACTGGTAACTGCCACA
 ATGCCATGTTCTANGGGATGCANNACTGTTGTGGAGGGCCCCAGCGGACTGCACCTGGTC
 TTCANAAGTTCATGGTGGTCCCATGTGGCTGGCGCTCANCAGTGGTCAGCATCACTGTT
 TGCTGGGGCTGCTCTTTGGNGAAGTGGNAGCCACCCAGCTTCTGCACCACAATTAGGGTG
 ACCTANNCTCAGTCATAGTCCCTCAAGTCAGGATGCCACTTTTTAACTGAACTGATGGC
 TG

Restriction Sites: NotI-NotI

ACCN: NM_003678

Insert Size: 2570 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_003678.4](#), [NP_003669.4](#)

RefSeq Size: 2447 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/NXF1 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]

Transcript Variant: This variant (4) differs in the 5' UTR compared to variant 1. All four variants encode the same protein.