

## Product datasheet for **SC118077**

### THBS4 (NM\_003248) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	THBS4 (NM_003248) Human Untagged Clone
Tag:	Tag Free
Symbol:	THBS4
Synonyms:	TSP-4; TSP4
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_003248, the custom clone sequence may differ by one or more nucleotides

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ATGCTGGCCCCGCGGGAGCCGCCGTCCTCTGCTGCACCTGGTCTGCAGCGGTGGCTAGCGGCAGGGC
CCCAGGCCACCCCCAGGTCTTTGACCTTCTCCCATCTCCAGTCAGAGGCTAAACCCAGGCGCTCTGCT
GCCAGTCTGACAGACCCCGCCCTGAATGATCTCTATGTGATTTCCACCTCAAGCTGCAGACTAAAAGT
TCAGCCACCATCTTCGGTCTTTACTCTTCAACTGACAACAGTAAATATTTTGAATTTACTGTGATGGGAC
GCTTAAACAAAGCCATCCTCCGTTACCTGAAGAACGATGGGAAGGTGCATTTGGTGGTTTTCAACAACT
GCAGCTGGCAGACGGAAGGCGGCACAGGATCCTCCTGAGGCTGAGCAATTTGCAGCGAGGGGCCGCTCC
CTAGAGCTCTACCTGGACTGCATCCAGGTGGATTCCGTTCAAACTCTCCCAGGGCCTTTGCTGGCCCT
CCCAGAACTGAGACCATTGAATTGAGGACTTCCAGAGGAAGCCACAGGACTTCTTGAAGAGCTGAA
GCTGGTGGTGGAGGCTCACTGTCCAGGTGGCCAGCCTGCAAGACTGCTTCTGCAGCAGAGTGAGCCA
CTGGCTGCCACAGGCACAGGGGACTTAAACCGGCAGTTCTTGGGTCAAATGACACAATTAACCAACTCC
TGGGAGAGGTGAAGGACCTTCTGAGACAGCAGGTTAAGGAAACATCATTTTTGCGAAACCCATAGCTGA
ATGCCAGGCTTGGGTCCTCTCAAGTTTCACTCTCCGACCCCAAGCACGGTGGTGCCTCCCGCTCCCT
GCACCGCAACACGCCACCTCGTCGGTGTGACTCCAACCCATGTTTCCGAGGTGTCCAATGTACCGACA
GTAGAGATGGCTTCCAGTGTGGGCCCTGCCCGAGGGCTACACAGGAAACGGGATCACCTGTATTGATGT
TGATGAGTGCAAAATACCATCCCTGCTACCCGGCGTGCCTGCATAAAATTTGCTCCTGGCTCAGATGT
GACGCTGCCAGTGGGCTTACAGGGCCCATGGTGCAGGGTGTGGGATCAGTTTTGCCAAGTCAAACA
AGCAGGTCTGCACTGACATTGATGAGTGTGAAATGGAGCGTGCCTTCCAACTCGATCTGCGTTAATAC
TTTGGGATCTTACCGCTGTGGCCTTGTAAAGCCGGGTATACTGGTGTGATCAGATAAGGGGATGCAAGCG
GAAAGAACTGCAGAAACCCAGAGCTGAACCTTGCAGTGTGAATGCCAGTGCATTAAGAGAGAGGACAG
GGGATGTGACATGTGTGTGGAGTCCGTTGGCTGGAGATGGCTATATCTGTGGAAGGATGTGGACAT
CGACAGTTACCCGACGAAGAAGTGCATGCTCTGCCAGGAAGTAAAAAGGACAAGTCAAAATATGTG
CCAAATCTGGCCAAGAAGATGCAGACAGAGATGGCATTGGCGACGCTTGTGACGAGGATGCTGACGGAG
ATGGGATCCTGAATGAGCAGGATAACTGTGCTGATTCAATATGTGGACCAAAGGAACAGCGATAAAGA
TATCTTTGGGATGCCTGTGATAACTGCCTGAGTGTCTTAAATAACGACCAGAAAGACACCGATGGGGAT
GGAAGAGGAGATGCCTGTGATGATGACATGGATGGAGATGGAATAAAAAACATTCTGGACAAGTCCCAA
AATTTCCCAATCGTGACCAACGGGACAAGGATGGTGTGATGGTGTGGGGATGCCTGTGACAGTTGCTCTGA
TGTCAGCAACCCTAACCACTGATGTGGATAATGATCTGGTGGGGACTCCTGTGACACCAATCAGGAC
AGTGATGGAGATGGGCACAGGACAGCAGACAAGTGCCTCCACCGTCATTAACAGTGCCTCAGCTGGACA
CCGATAAGGATGGAATGGTGTGACGAGTGTGATGATGATGACAATGATGGTATCCCAGACCTGGTGCC
CCCTGGACCAGACAAGTCCCGGCTGGTCCCAACCCAGCCAGGAGGATAGCAACAGCGCAGGAGTGGGA
GACATCTGTGAGTCTGACTTTGACCAGGACCAGGTGATCGATCGGATCGACGCTGCCCAGAGAACCGAG
AGGTACCCTGACCGACTTACGGGCTTACCAGACCGTGGTCTGGATCCTGAAGGGGATGCCAGATCGA
TCCCAACTGGGTGGTCTGAACCAAGGCATGGAGATTGTACAGACCATGAACAGTGTGCTGGCCTGGCA
GTGGGGTACACAGCTTTTAAATGGAGTTGACTTCGAAGGGACCTTCCATGTGAATACCCAGACAGATGATG
ACTATGCAGGCTTTATCTTTGGCTACCAAGATAGCTCCAGCTTCTACGTGGTGTGGAAGCAGACCGGA
GCAGACATATTGGCAAGCCACCCATTCGAGCAGTTGCAGAACCTGGCATTCAAGTCAAGGCTGTGAAG
TCTAAGACAGGTCCAGGGGAGCATCTCCGAACTCCCTGTGGCACACGGGGGACACCAGTACCAGGTCA
GGCTGCTGTGGAAGGACTCCAGGAATGTGGGCTGGAAGGACAAGGTGTCTACCGCTGGTTCCTACAGCA
CAGGCCCCAGGTGGGCTACATCAGGATACGATTTTATGAAGGCTCTGAGTTGGTGGCTGACTCTGGCGTC
ACCATAGACACCACAATGCGTGGAGGCCGACTTGGCGTTTTCTGCTTCTCAAGAAAACATCATCTGGT
CCAACCTCAAGTATCGTGCAATGACACCATCCCTGAGGACTTCCAAGAGTTTCAAACCCAGAATTCGA
CCGCTTCGATAATTA
    
```

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_003248 unedited  
 GTTCGAATTTGTATACGACTCATATAGGGCGGCCGCGATTTCGGCAGGAGCCAGCACCG  
 CGCGGGCGGGGACGCGAGCGCGCCCCGACGGCAGCCCGGACCGGAGCAGCGGGTACCTG  
 CGGCGCCGGCCCGGGCGCCGACCGAGGTTCAACGCACGGCCCGGGGACCCCAAGCGGGG  
 CCAACGCCGCGCTCGCCCCGGCCTCGCGGGGAGCAGGAAGAGCCAACATGCTGGCCCCG  
 CGCGGAGCCGCGCTCCTCCTGTCACCTGGTCTGCAGCGGTGGCTAGCGGCAGGCGCC  
 CAGGCCACCCCCAGGTCTTTGACCTTCTCCATCTTCCAGTCAGAGGCTAAACCCAGGC  
 GCTCTGTCTGCAGTCTGACAGACCCCGCCTGAATGATCTCTATGTGATTTCCACCTTC  
 AAGCTGCAGACTAAAAGTTCAGCCACCCTTCGGTCTTTACTCTTCAACTGACAACAGT  
 AAATATTTTGAATTTACTGTGATGGGACGCTTAAACAAAGCCATCCTCCGTTACCTGAAG  
 AACGATGGGAAGGTGCATTTGGTGGTTTTCAACAACCTGCAGCTGGCAGACGGAAGGCGG  
 CACAGGATCCTCCTGAGGCTGAGCAATTTGCAGCGAGGGGCCGGTCCCTAGAGCTCTAC  
 CTGGACTGCATCCAGGTGGATTCCGTTTCAATCTCCCCAGGGCCTTTGCTGGCCCCCTC  
 CAGAAACCTGAGACCATTTGAATTGAGGACTTTCCAGAGGAAGCCTCAGGACTTCTTGGN  
 AAGAGCTGAGCTGGTGGGTGAGAGGCTCACTGGTCNCCAGTGGCCAGCCTGGCAGACTGC  
 TTCTGCAGCAGAGTGAGCCACTGGCTTGCCAGCACAGGGGACTATACCGCAGTTTTTTGG  
 GTCAATGACACATAACCATCTGG

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_003248 unedited  
 GCCGCTATTCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAAAAATGATCTC  
 TTCTCCTTTATTGCCACATTCACATAAAACGTTTTTATATATTTGGTGGTAAAAGCTA  
 AAGAAAATTGAAGTTAAAATATATATGGTTTTAGTGTCCGAAAAGCAGTTACAGATTGC  
 TTCTTGGTTTAAATTATCGAAGCGGTGCGAAATCTGGGTTTGAAACTCTTGGAAGTCCCTC  
 AGGGATGGTGTCAATTGCAGCGATACTTGAGGTTGGACCAATGATGTTTTCTTGAGAGAA  
 GCAGAAAACGCCAAGTCGGCCTCCACGCATTGTGGTGTCTATGGTACGCCAGAGTCAGC  
 CACCAACTCAGAGCCTTCATAAAATCGTACCCTGATGTAGCCACCTGGGGCCTGTGCTG  
 TAGGAACCAGCGGTAGGACACCTTGTCTTCCAGCCACATTCTGGAGTCTTCCACAG  
 CAGCCTGACCTGGTCACTGGTGTCCCCGTGTGCCACAGGGAGTCCGGAGATGCTCCCC  
 TGGACCTGTCTTAAACTTCACAGCCTTGAGCTGAATGCCAGGTTCTGCAACTGCCTCGGA  
 ATGGGGTGGCCTTGCCAATATGTCTGCTCCGCTGCTTCCAATGACCCACCTAAAACCGG  
 CAGCTATCTTGGGACCCAAAAATAAACCCGCATAAGTCTTATCTGTCTGGGTTTCACATG  
 GAAGGCCCTTTGAAGCCCTCCTTAAAACCTGGACCCCTGCCAGCCACATCCTGTTCA  
 GGGCTGGCAATTCATGCCCTGTTACAGGCCACCCATTGGGACCATCTGGCTTCCCTTTGG  
 ATCCACACCCAGTCTGTACTCCTTATCGCTAAGGGACCTTCCGTTCTTGGTGAAGTGC  
 ATCTCCGAAACCTGGCCTCGTCAAATCCACCCATATGCTCCCTCTTTCGATTACCTCTCT  
 ACGCGTGGAT

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_003248

**Insert Size:**

3330 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

**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\\_003248.3](#), [NP\\_003239.2](#)

**RefSeq Size:** 3233 bp

**RefSeq ORF:** 2886 bp

**Locus ID:** 7060

**UniProt ID:** [P35443](#)

**Cytogenetics:** 5q14.1

**Domains:** EGF\_CA, TSPN, tsp\_3, EGF, EGF

**Protein Families:** Druggable Genome

**Protein Pathways:** ECM-receptor interaction, Focal adhesion, TGF-beta signaling pathway

**Gene Summary:**

The protein encoded by this gene belongs to the thrombospondin protein family. Thrombospondin family members are adhesive glycoproteins that mediate cell-to-cell and cell-to-matrix interactions. This protein forms a pentamer and can bind to heparin and calcium. It is involved in local signaling in the developing and adult nervous system, and it contributes to spinal sensitization and neuropathic pain states. This gene is activated during the stromal response to invasive breast cancer. It may also play a role in inflammatory responses in Alzheimer's disease. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2015]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longer isoform (a).