

## Product datasheet for SC118008

### Tristetraprolin (ZFP36) (NM\_003407) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tristetraprolin (ZFP36) (NM_003407) Human Untagged Clone
Tag:	Tag Free
Symbol:	Tristetraprolin
Synonyms:	G0S24; GOS24; NUP475; RNF162A; TIS11; TTP; zfp-36
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC118008 sequence for NM_003407 edited (data generated by NextGen Sequencing)

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ATGGATCTGACTGCCATCTACGAGAGCCTCCTGTCGCTGAGCCCTGACGTGCCCCGTGCCA
TCCGACCATGGAGGGACTGAGTCCAGCCAGGCTGGGGCTCCTCGGGACCCTGGAGCCTG
AGCCCCCTCCGACTCCAGCCCGTCTGGGGTACCTCCCGCCTGCCTGGCCGCTCCACCAGC
CTAGTGGAGGGCCGAGCTGTGGCTGGGTGCCCCACCCCTGGCTTCGCACCGCTGGCT
CCCCGCTGGGCCCTGAGCTGTACCCCTCACCACTTCGCCCACTGCAACCTCCACCACC
CCCTCGCGCTACAAGACTGAGCTATGTCGGACCTTCTCAGAGAGTGGGCGCTGCCGCTAC
GGGGCCAAGTCCAGTTTGGCCATGGCCTGGGCGAGCTGCGCCAGGCCAATCGCCACCCC
AAATAAAGACGGAAGTCTGTACAAGTTCTACCTCCAGGGCCGCTGCCCTACGGCTCT
CGCTGCCACTTCCACAACCCTAGCGAAGACCTGGCGGCCCGGGCCACCCTCCTGTG
CTTCGCCAGAGCATCAGCTTCTCCGGCCTGCCCTCTGGCCGCCGGACCTACCACCACCA
CCAGGCCCTGGCCGGCCCTTCCCTGTCTCCAGCTCCTTCTCGCCCTCCAGCTCCCCACCA
CCACCTGGGGACCTTCCACTGTACCCCTCTGCCTTCTCTGCTGCCCTGGCACCCCCCTG
GCTCGAAGAGACCCACCCAGTCTGTTGCCCTCCTGCCAAGGGCCACTCCTATCAGC
GTCTGGGGGCCCTTGGGTGGCCTGGTTCGGACCCCTCTGTACAGTCCCTGGGATCCGAC
CCTGATGAATATGCCAGCAGCGGCAGCAGCCTGGGGGCTCTGACTCTCCCGTCTTCGAG
GCGGGAGTTTTTGACACCCAGCCCGTGGCAGCCCCCGGCGACTCCCATCTTCAAT
CGCATCTCTGTTTCTGAGTGA

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Clone variation with respect to NM\_003407.2



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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_003407 unedited</p> <pre>GCATTTTGTAAATACGAACTCACTATAGGGCGGCCGGAATCGGCACGAGGCCCTCATGG CCAACCGTTACACCATGGATCTGACTGCCATCTACGAGAGCCTCTGTGCTGAGCCCTG ACGTGCCCGTGCCATCCGACCATGGAGGACTGAGTCCAGCCCAGGCTGGGGCTCCTCGG GACCCTGGAGCCTGAGCCCTCCGACTCCAGCCGCTGGGGTACCTCCCGCCTGCCTG GCCGCTCCACCAGCCTAGTGGAGGGCCGAGCTGTGGCTGGGTGCCCCACCCCTGGCT TCGCACCCTGGCTCCCCGCTGGGCCCTGAGCTGTACCCTCACCCACTTCGCCACTG CAACCTCCACCACCCCTCGCGCTACAAGACTGAGCTATGTCGGACCTTCTCAGAGAGTG GGCGCTGCCGCTACGGGGCCAAGTGCCAGTTTGGCCATGGCCTGGGCGAGCTGCCCCAGG CCAATCGCCACCCCAAATAACAAGACGGAACCTGTGACAAAGTTCTACCTCCAGGGCCGCT GCCCTACGGCTCTCGCTGCCACTTCATCCACAACCTAGCGAAGACCTGGCGGCCCGG GCCACCCTCCTGTGCTTCGCCAGAGCATCAGCTTCTCCGGCTGCCCTTGCCCGCCGA CCTCACCACCACCAGGCCTGGCCGGCCCTCCCTGTCCTCCAGCTCCTTCTCGCCCT CCAGCTCCCACCACCACCTGGGACCTTCCACTGTACCCTCTGCCTTCTGTGTGCC CTGGCACCCCTGGCTCGAAGAGACCCACCCAGTCTGTTGCCCTTCTGCCGAAGGG CCTACTCTATCAGCGTCTGGNGGCCCTTGGGTGGCCTGGNTTCGACCCCTCTGTAGTCC CTGGGATCCGACCCTGATGATATGCCAGCAGCGGCAGCAGCCTGGGGGCTCTGACTCTC CGTCTCGAC</pre>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_003407 unedited</p> <pre>CGCGGTACGTTATCTANAGTAGAGTTTTTTTTTTTTTTTTTTTTTACACTCAAATTGTTTA TTTTAAAAATGCCAAAACACAAAATAGACTTTTAAGGTAATAATATATATACTAAATA TATTATAGCCTACTTATAAATACTTATATCCGCCGCTTTTAATATTAATAAAGGTAAGAA AAATATATGGGTAATAGACGACCCAATATCTATAAATACTATAAAATCATATTAGATAA ATAAAGTCGTCATAAATAAAGGGCCATTGATTTATGGGTGGGGTTTGGTAACGGATTTG GCTACTTGCTTTTCGGAGGGCTCTCTGCCACCACGATTCCCCCTCCAGACAGGCCTCACC TTCCACCACACCTGCAACCCCTCAGGCCTATAACCACTGGAGGCGCACCGAAGGCCTTTC CTCCACAGCCCATATGATCCTAGGAGACACATTTGCGCAGGGAATAGGTGGGGGAGAGGG ACCATTGCCTCCCTTAACTATGTACACTACTTCCCCCACCACCTCGGCATGACAC TCCCTTTCTCACCTCAATGCACACTGACCTTGAACCTCGGCGACCTGCACACACCGA GGCTAGGGGATTGGACTAATGTCTTCTGGAAAAGGGGACTACTTGTTTACTGTACCCCA CGTCACTCCACTCTGGGGCCCTCCCCACACCCAGTGCCTTCATACCCGCCCTCCTCCT GACATCCCACTGATCTGCCCCGCCCACTTTTCCCACTCTCAAACCCAATCCCACCGCA CCCGGCACCCCTTCGGGCGCTCACCCCTGCGGTGCGCCACACTTCCCTCCCACCCG CAAATCAAACCCCCAGCCCGCCCATGCTGGACTACCCAGGATAGCATCCTAGACCG TTCGAGGGGACCACCCGCTCCCCAGGACTCTACCCTGTTAGATGGCACCTACCCCGC GGCCCT</pre>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_003407
<b>Insert Size:</b>	1830 bp
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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\\_003407.1](#), [NP\\_003398.1](#)

**RefSeq Size:** 1746 bp

**RefSeq ORF:** 981 bp

**Locus ID:** 7538

**UniProt ID:** [P26651](#)

**Cytogenetics:** 19q13.2

**Domains:** zf-CCCH

**Gene Summary:** Zinc-finger RNA-binding protein that destabilizes several cytoplasmic AU-rich element (ARE)-containing mRNA transcripts by promoting their poly(A) tail removal or deadenylation, and hence provide a mechanism for attenuating protein synthesis (PubMed:9703499, PubMed:10330172, PubMed:10751406, PubMed:11279239, PubMed:12115244, PubMed:12748283, PubMed:15187101, PubMed:15634918, PubMed:17030620, PubMed:16702957, PubMed:20702587, PubMed:20221403, PubMed:21775632, PubMed:27193233, PubMed:23644599, PubMed:25815583). Acts as an 3'-untranslated region (UTR) ARE mRNA-binding adapter protein to communicate signaling events to the mRNA decay machinery (PubMed:15687258, PubMed:23644599). Recruits deadenylase CNOT7 (and probably the CCR4-NOT complex) via association with CNOT1, and hence promotes ARE-mediated mRNA deadenylation (PubMed:23644599). Functions also by recruiting components of the cytoplasmic RNA decay machinery to the bound ARE-containing mRNAs (PubMed:11719186, PubMed:12748283, PubMed:15687258, PubMed:16364915). Self regulates by destabilizing its own mRNA (PubMed:15187101). Binds to 3' UTR ARE of numerous mRNAs and of its own mRNA (PubMed:10330172, PubMed:10751406, PubMed:12115244, PubMed:15187101, PubMed:15634918, PubMed:17030620, PubMed:16702957, PubMed:19188452, PubMed:20702587, PubMed:20221403, PubMed:21775632, PubMed:25815583). Plays a role in anti-inflammatory responses; suppresses tumor necrosis factor (TNF)-alpha production by stimulating ARE-mediated TNF-alpha mRNA decay and several other inflammatory ARE-containing mRNAs in interferon (IFN)-and/or lipopolysaccharide (LPS)-induced macrophages (By similarity). Plays also a role in the regulation of dendritic cell maturation at the post-transcriptional level, and hence operates as part of a negative feedback loop to limit the inflammatory response (PubMed:18367721). Promotes ARE-mediated mRNA decay of hypoxia-inducible factor HIF1A mRNA during the response of endothelial cells to hypoxia (PubMed:21775632). Positively regulates early adipogenesis of preadipocytes by promoting ARE-mediated mRNA decay of immediate early

genes (IEGs) (By similarity). Negatively regulates hematopoietic/erythroid cell differentiation by promoting ARE-mediated mRNA decay of the transcription factor STAT5B mRNA (PubMed:20702587). Plays a role in maintaining skeletal muscle satellite cell quiescence by promoting ARE-mediated mRNA decay of the myogenic determination factor MYOD1 mRNA (By similarity). Associates also with and regulates the expression of non-ARE-containing target mRNAs at the post-transcriptional level, such as MHC class I mRNAs (PubMed:18367721). Participates in association with argonaute RISC catalytic components in the ARE-mediated mRNA decay mechanism; assists microRNA (miRNA) targeting ARE-containing mRNAs (PubMed:15766526). May also play a role in the regulation of cytoplasmic mRNA decapping; enhances decapping of ARE-containing RNAs, in vitro (PubMed:16364915). Involved in the delivery of target ARE-mRNAs to processing bodies (PBs) (PubMed:17369404). In addition to its cytosolic mRNA-decay function, affects nuclear pre-mRNA processing (By similarity). Negatively regulates nuclear poly(A)-binding protein PABPN1-stimulated polyadenylation activity on ARE-containing pre-mRNA during LPS-stimulated macrophages (By similarity). Also involved in the regulation of stress granule (SG) and P-body (PB) formation and fusion (By similarity). Plays a role in the regulation of keratinocyte proliferation, differentiation and apoptosis (PubMed:27182009). Plays a role as a tumor suppressor by inhibiting cell proliferation in breast cancer cells (PubMed:26926077).[UniProtKB/Swiss-Prot Function]