

## Product datasheet for **SC306805**

### TGIF (TGIF1) (NM\_173207) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TGIF (TGIF1) (NM_173207) Human Untagged Clone
Tag:	Tag Free
Symbol:	TGIF
Synonyms:	HPE4; TGIF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC306805 representing NM_173207. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG  
 GATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**  
 ATGACTTGCTCGGGCAAAAGTTGTGATTGGCCCGATCAAGCCTGACTTCTAGCCAAGGTATTGTTGCA  
 GCATCTGGCAGTGAGACTGAGGATGAGGACAGCATGGACATTCCTTGGACCTTTCTTCATCCGCTGGC  
 TCAGGCAAGAGAAGGAGAAGGGGCAACCTACCCAAGGAGTCTGTGCAGATTCTTCGGGATTGGCTGTAT  
 GAGCACCGTTACAATGCCTATCCTTCAGAGCAAGAAAAAGCGTTGCTGTCCAGCAAACACACCTGTCT  
 ACGCTACAGGTCTGTAAGTGGTTCATCAACGCCCGCCGAGGCTCCTCCCTGACATGCTGAGAAAGGAT  
 GGCAAAGATCCAAATCAGTTCACAATTTCCGCGTGGGGCCAAGATTTCTGAAACGAGCTCTGTGGAG  
 TCCGTGATGGGCATCAAAACTTCATGCCAGCTCTAGAGGAGACCCATTTCATTCTGTACAGCTGGG  
 CCAAAACCAACCTAGGGAGGCCACTGTCTCCTAAGCCGTCAATCCCGGGATCAGTTTGGCTCGTCCA  
 TCAGTGATCTGCCATACCACTGTGACTGCATTGAAAGATGTCCCTTTCTCTCTGCCAGTCGGTCGGT  
 GTGGGACAAAACAGATATACAGCAGATAGCGGCCAAAACTTCACAGACACCTCTCTCATGTACCCA  
 GAGGACACTTGTAATCTGGACCAAGTACGAATACACAGAGTGGTCTTTCAACACTCCTCCCCCTACT  
 CCACCGGACCTCAACCAGGACTTCAGTGGATTTCAGCTTCTAGTGGATGTTGCACTCAAACGGGCTGCA  
 GAGATGGAGCTTCAGGCAAACTTACAGCT**TAA**  
**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGAT  
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:	SgfI-MluI
ACCN:	NM_173207
Insert Size:	861 bp


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<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>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_173207.2</a></u>
<b>RefSeq Size:</b>	1498 bp
<b>RefSeq ORF:</b>	861 bp
<b>Locus ID:</b>	7050
<b>UniProt ID:</b>	<u><a href="#">Q15583</a></u>
<b>Cytogenetics:</b>	18p11.31
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency, Stem cell relevant signaling - TGfB/BMP signaling pathway, Transcription Factors
<b>MW:</b>	31.1 kDa

**Gene Summary:**

The protein encoded by this gene is a member of the three-amino acid loop extension (TALE) superclass of atypical homeodomains. TALE homeobox proteins are highly conserved transcription regulators. This particular homeodomain binds to a previously characterized retinoid X receptor responsive element from the cellular retinol-binding protein II promoter. In addition to its role in inhibiting 9-cis-retinoic acid-dependent RXR alpha transcription activation of the retinoic acid responsive element, the protein is an active transcriptional co-repressor of SMAD2 and may participate in the transmission of nuclear signals during development and in the adult. Mutations in this gene are associated with holoprosencephaly type 4, which is a structural anomaly of the brain. Alternative splicing has been observed at this locus and multiple splice variants encoding distinct isoforms are described. [provided by RefSeq, Jul 2013]

Transcript Variant: This variant (2) has an alternate 5' terminal exon, which results in a different 5' UTR and 5' coding region, compared to variant 1. The resulting isoform (b) is shorter and has a distinct N-terminus, compared to isoform a.