

## Product datasheet for **SC309807**

### GPCR TGR7 (MRGPRD) (NM\_198923) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GPCR TGR7 (MRGPRD) (NM_198923) Human Untagged Clone
Tag:	Tag Free
Symbol:	GPCR TGR7
Synonyms:	MRGD; TGR7
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_198923 edited  
GGCGGCCGCCAGTGTGATGGATATCTGCAGAATTCGGCTTAAGGCATGAACCAGACTTTG  
AATAGCAGTGGGACCGTGGAGTCAGCCCTAAACTATTCCAGGGAGCACAGTGCACACG  
GCCTACCTGGTGTGCTGAGCTCCCTGGCCATGTTACCTGCCTGTGCGGGATGGCAGGCAAC  
AGCATGGTGATCTGGCTGCTGGGCTTTCGAATGCACAGGAACCCCTTCTGCATCTATATC  
CTCAACCTGGCGGCAGCCGACCTCCTCTTCTTCTCAGCATGGCTTCCACGCTCAGCCTG  
GAAACCCAGCCCCTGGTCAATACCACTGACAAGGTCCACGAGCTGATGAAGAGACTGATG  
TACTTTGCCTACACAGTGGGCTGAGCCTGCTGACGGCCATCAGCACCCAGCGCTGTCTC  
TCTGTCTCTTCCCTATCTGGTTCAAGTGTACCCGGCCAGGCACCTGTCAGCCTGGGTG  
TGTGGCCTGCTGTGGACGCTCTGTCTCCTGATGAACGGGTTGACCTCTTCTTCTGCAGC  
AAGTTCTTGAAATCAATGAAGATCGGTGCTTCAGGGTGGACATGGTCCAGGCCGCCCTC  
ATCATGGGGTCTTAACCCAGTGATGACTCTGTCCAGCCTGACCCTCTTGTCTGGGTG  
CGGAGGAGCTCCCAGCAGTGGCGCGGCAGCCACACGGCTGTTCTGTTGGTGGTCTCGCC  
TCTGTCTGTTGTTCCCTCATCTGTTCCCTGCCTCTGAGCATCTACTGGTTTGTGCTCTAC  
TGGTTGAGCCTGCCGCCGAGATGCAGGTCCTGTGCTTACGTTGTACGCTCTCCTCG  
TCCGTAAGCAGCAGCGCCAACCCGTCATCTACTTCTGGTGGGAGCCGAGGAGCCAC  
AGGCTGCCACCAGGTCCTGGGACTGTGCTCCAACAGGCGCTTCGCGAGGAGCCCGAG  
CTGGAAGGTGGGAGACGCCACCGTGGCACCAGTATGAGATGGGGGCTTGAGAAAGCCGA  
ATTCAGCACACTGGCGGCGTTACTAGTGGATCCGAGCTCGTACCGATATCAAGCTTG  
TCGACTTAGATTGCGGCGCGGTATAGCTGTTTCTGAACAGATCCCGGGTGGCATCC  
CTGTGACCCCTCCCAGTGCCTCTCCTGCCCCTGGAAGTTGCCACTCCAGTGCCACCAG  
CCTTGTCTAATAAAATTAATTAATGCATCATTTTGTCTGACTAGGTGTCCTTCTATAATAT  
TATGGGGTGG



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_198923 unedited TGGGGGCAACTGGATTTGTAAACGACATACTATAGGCGGCCGCCAGTGTGATGGATATCT GCAGAATTCGGCTTAAGGCATGAACCAGACTTTGAATAGCAGTGGGACCGTGGAGTCAGC CCTAAACTATTCCAGAGGGAGCACAGTGCACACGGCCTACCTGGTGTGAGCTCCCTGGC CATGTTACCTGCCTGTGCGGGATGGCAGGCAACAGCATGGTGTCTGGCTGTGGGCTT TCGAATGCACAGGAACCCCTTCTGCATCTATATCTCAACCTGGCGGCAGCCGACCTCCT CTTCCTTTCAGCATGGCTTCCACGCTCAGCCTGGAAACCCAGCCCTGGTCAATACCAC TGACAAGTCCACGAGCTGATGAAGAGACTGATGTACTTTGCCTACACAGTGGCCCTGAG CCTGCTGACGGCCATCAGCACCCAGCGCTGTCTCTGTCTCTTCCCTATCTGGTTCAA GTGTCACCGGCCAGGCACCTGTGAGCCTGGGTGTGGCCTGTGTGGACGCTCTGTCT CCTGATGAACGGGTTGACCTCTTCTTCTGCAGCAAGTCTTCAAATGAAGATCG GTGCTTACAGGTGGACATGGTCCAGGCCCTCATCATGGGGTCTTAACCCAGTGAT GACTCTGTCCAGCCTGACCTCTTTGTCTGGGTGCGGAGGAGCTCCAGCAGTGGCGGG GCAGCCACACGGCTGTTCTGGTGGTCTGGCCTGTCTCTGGTGTTCCTCATCTGTTC CCTGCCTCTGAGCATCTACTGGTTGTGCTCTACTGGTTGAGCCTGCCGCCGAGATGCA NGTCCTGTGCTTACGCTGTACGCCTCTCCTCGTCCGTAAAGCAGCAGCGCCAACC
<b>3' Read Nucleotide Sequence:</b>	>Forward primer walk for NM_198923 unedited GAACTAGGGGTCTAACCCATGAGACTTGTCCAGCCGNCCCTCTTGTCTGGGTGCGGAGG AGCTCCCAGCAGTGGCGGCGCAGCCACACGGCTGTTCTGGTGGTCTGGCCTCTGTC CTGGTGTCTCTCATCTGTTCCTGCCTCTGAGCATCTACTGGTTGTGCTCTACTGGTTG AGCCTGCCGCCGAGATGCAGGTCCTGTGCTTACGCTTGTACGCCTCTCCTCGTCCGTA AGCAGCAGCGCAACCCGTCATCTACTTCTGGTGGGCAGNCNGAGGAGCCACAGGCTG CCCACCAGGTCCCTGGGACTGNGCTCCAACAGGCGCTTCGCGAGGAGCCGAGCTGGAA GGTGGGGAGACGCCACCGTGGGCACCAATGAGATGGGGGCTTGAGAAAGCCGAATTCCA GCACACTGGCGGCCGTTACTAGTGGATCCGAGCTCGGTACCGATATCAAGCTTGTGACT CTAGATTGCGGCCGCGGTATAGCTGTTTCTGAAACAGATCCCGGTGGCATCCCTGTGA CCCCTCCCAGTGCTCTCCTGGCCCTGGAAAGTTGCCACTCCAGTGCCACCAGCCCTGT CCTAATAAAATTAATTCATCATTTTGTCTGACTAAGTGCCTTCTATAATATTATTGN GTTGGAAGGGGATGNTTNNAAATNNAACNCAAATAANAAAAACATAAAAAANNNAACAAN AAAAAAATNAAACNNNCNNTNNNNAAAAATNAAACATAANNNNAAAAANNNAANCAAT AATAACAAANNAANAATAAAAAANAACANCAANTAAAAANNAAAAAAAAAANACA NAAAAAAAAAAAAATAATAATAAAAAATTTANAAAAANTNANGAAAAATTTGAAGAGAA GG
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_198923
<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 construct is a cloned PCR fragment that was fully sequenced. There is 1 nucleotide difference between the OriGene clone and the NCBI reference ORF, however, this results in the substitution of no amino acids.
<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\\_198923.2](#), [NP\\_944605.2](#)

**RefSeq Size:** 966 bp

**RefSeq ORF:** 966 bp

**Locus ID:** 116512

**UniProt ID:** [Q8TDS7](#)

**Cytogenetics:** 11q13.3

**Protein Families:** Druggable Genome, Transmembrane

**Gene Summary:** May regulate nociceptor function and/or development, including the sensation or modulation of pain. Functions as a specific membrane receptor for beta-alanine. Beta-alanine at micromolar doses specifically evoked Ca(2+) influx in cells expressing the receptor. Beta-alanine decreases forskolin-stimulated cAMP production in cells expressing the receptor, suggesting that the receptor couples with G-protein G(q) and G(i).[UniProtKB/Swiss-Prot Function]