

## Product datasheet for **RG211209**

### **TAS2R38 (NM\_176817) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** TAS2R38 (NM\_176817) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** TAS2R38  
**Synonyms:** PTC; T2R38; T2R61; THIOT  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG211209 representing NM\_176817  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTGACTCTAACTCGCATCCGCACTGTGTCCTATGAAGTCAGGAGTACATTTCTGTTCATTTTCAGTCC  
TGGAGTTTGCAGTGGGTTTCTGACCAATGCCTTCGTTTTCTGGTGAATTTTGGGATGTAGTGAAGAG  
GCAGGCACTGAGCAACAGTGATTGTGTGCTGTGTCTCAGCATCAGCCGGCTTTCTGCATGGACTG  
CTGTTCTGAGTGTATCCAGCTTACCCACTTCCAGAAGTTGAGTGAACCACTGAACCACAGCTACCAAG  
CCATCATCATGCTATGGATGATTGCAAACCAAGCCAACCTCTGGCTTGTGCCTGCCTCAGCCTGCTTTA  
CTGCTCCAAGCTCATCCGTTTCTCTCACACCTTCTGATCTGCTTGGCAAGCTGGGTCTCCAGGAAGATC  
TCCAGATGCTCCTGGGTATTATTCTTTGCTCCTGCATCTGCACTGTCCTCTGTGTTTGGTCTTTTTTA  
GCAGACCTCACTTACAGTCACAACCTGTGCTATTCATGAATAACAATAACAAGGCTCAACTGGCAGATTAA  
AGATCTCAATTTATTTTATTCCTTTCTCTTCTGCTATCTGTGGTCTGTGCCTCCTTTCTATTGTTTCTG  
GTTTCTTCTGGGATGCTGACTGTCTCCCTGGGAAGGCACATGAGGACAATGAAGGTCTATACCAGAACT  
CTCGTGACCCAGCCTGGAGGCCACATTAAGCCCTCAAGTCTTGTCTCCTTTTCTGCTTCTTTGT  
GATATCATCTGTGTTGCCTTCTCTGTGCCCTACTGATTCTGTGGCGGACAAAATAGGGGTGATG  
GTTTGTGTGGGATAATGGCAGCTTGTCCCTCTGGCATGCAGCCATCCTGATCTCAGGCAATGCCAAGT  
TGAGGAGAGCTGTGATGACCATTCTGCTCTGGGCTCAGAGCAGCCTGAAGGTAAGAGCCGACCACAAGGC  
AGATTCCTCGGACACTGTGC

**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA**



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**Protein Sequence:** >RG211209 representing NM\_176817  
Red=Cloning site Green=Tags(s)

MLTLTRIRTVSYEVRSTFLFISVLEFAVGFLTNAFVFLVNFWDVVKRQALSNSDCVLLCLISIRLFLHGL  
 LFLSAIQLTHFQKLEPLNHSYQAIIMLWMIANQANLWLAACL SLLYCSKLIRFSHTFLICLASWVSRKI  
 SQMLLGII LCSCICTVLCVWCFFSRPHFTVTTVLFMNNNTRLNWQIKDLNLFYSFLFCYLWSVPPFLLFL  
 VSSGMLTVSLGRHMRTMKVYTRNSRDP SLEAHIKALKSLVSFFCFVVISSCVAFISVPLLI LWRDKIGVM  
 VCVGIMAACPSGHAAILISGNAKLRRAVMTILLWAQSSLKVRADHKADSR TLC

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_176817

**ORF Size:** 999 bp

**OTI Disclaimer:** 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](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_176817.4](#)

**RefSeq Size:** 1143 bp

**RefSeq ORF:** 1002 bp

**Locus ID:** 5726

**UniProt ID:** [P59533](#)

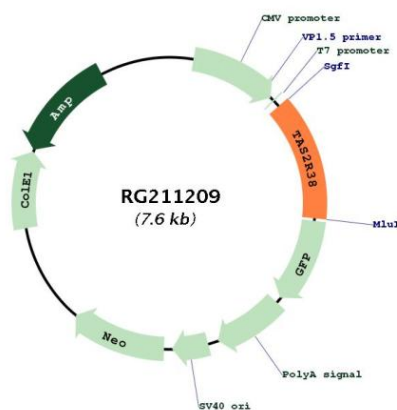
**Cytogenetics:** 7q34

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Taste transduction

**Gene Summary:** This gene encodes a seven-transmembrane G protein-coupled receptor that controls the ability to taste glucosinolates, a family of bitter-tasting compounds found in plants of the Brassica sp. Synthetic compounds phenylthiocarbamide (PTC) and 6-n-propylthiouracil (PROP) have been identified as ligands for this receptor and have been used to test the genetic diversity of this gene. Although several allelic forms of this gene have been identified worldwide, there are two predominant common forms (taster and non-taster) found outside of Africa. These alleles differ at three nucleotide positions resulting in amino acid changes in the protein (A49P, A262V, and V296I) with the amino acid combination PAV identifying the taster variant (and AVI identifying the non-taster variant). [provided by RefSeq, Oct 2009]

**Product images:**



Circular map for RG211209