

Product datasheet for **RC219286**

TAS1R1 (NM_138697) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | TAS1R1 (NM_138697) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | TAS1R1 |
| Synonyms: | GM148; GPR70; T1R1; TR1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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ORF Nucleotide Sequence:

>RC219286 representing NM_138697
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGCTCTGCACGGCTCGCCTGGTCGGCCTGCAGTCTCTCATTTCCTGCTGCTGGCCTTTGCCTGCC
 ATAGCACGGAGTCTTCTCCTGACTTCACCTCCCGGAGATTACCTCCTGGCAGGCCTGTTCCCTCTCCA
 TTCTGGCTGTCTGCAGGTGAGGCACAGACCCGAGGTGACCCTGTGTGACAGGTCTTGTAGCTTCAATGAG
 CATGGCTACCACCTCTTCCAGGCTATGCGGCTTGGGGTTGAGGAGATAAACAACCTCCACGGCCCTGCTGC
 CCAACATCACCTGGGGTACCAGCTGTATGATGTGTGTTCTGACTCTGCCAATGTGTATGCCACGCTGAG
 AGTGTCTCCCTGCCAGGGCAACACCACATAGAGCTCCAAGGAGACCTTCTCCACTATCCCTACGGTG
 CTGGCAGTGATTGGCCTGACAGCACCAACCGTGTGCCACCACAGCCCTGCTGAGCCCTTCTCTGG
 TGCCCATGATTAGCTATGCGGCCAGCAGCGAGACGCTCAGCGTGAAGCGGCAGTATCCCTCTTCTGCG
 CACCATCCCAATGACAAGTACCAGGTGGAGACCATGGTGTGCTGCTGCAGAAGTTCGGGTGGACCTGG
 ATCTCTCTGGTTGGCAGCAGTGACGACTATGGGACGTAGGGGTGCAGGCACTGGAGAACCAGGCCACTG
 GTCAGGGGATCTGCATTGCTTCAAGGACATCATGCCCTTCTCTGCCAGGTGGGCGATGAGAGGATGCA
 GTGCCATGCGCCACCTGGCCAGGCCGGGCCACCGTCTGTTGTTTTCCAGCCGGCAGTTGGCC
 AGGGTGTTTTTCGAGTCCGTGGTGTGACCAACCTGACTGGCAAGGTGTGGGTCGCTCAGAAGCCTGGG
 CCCTCTCCAGGCACATCACTGGGGTGCCTGGATCCAGCGCATTGGGATGGTGTGGGCTGGCCATCCA
 GAAGAGGGCTGTCCCTGGCCTGAAGCGCTTGAAGAAGCCTATGCCCGGGCAGACAAGGAGGCCCTAGG
 CTTTGGCACAAGGGCTCCTGGTGCAGCAGCAATCAGCTCTGCAGAGAATGCCAAGCTTTCATGGCACACA
 CGATGCCAAGCTCAAAGCCTTCTCCATGAGTTCTGCCACAACGCATACCGGGCTGTGTATGCGGTGGC
 CCATGGCCTCCACCAGCTCCTGGGCTGTGCTCTGGAGCTTGTTCAGGGGCCGAGTCTACCCCTGGCAG
 CTTTTGGAGCAGATCCACAAGGTGCATTTCTTCTACACAAGGACACTGTGGCGTTAATGACAACAGAG
 ATCCCTCAGTAGCTATAACATAATTGCCTGGGACTGGAATGGACCCAAGTGGACCTTACGGTCTCGG
 TTCCTCCACATGGTCTCCAGTTCAGCTAAACATAAATGAGACCAAAATCCAGTGGCACGGAAAGGACAAC
 CAGGTGCCTAAGTCTGTGTGTTCCAGCGACTGTCTTGAAGGGCACCAGCGAGTGGTTACGGGTTTCCATC
 ACTGCTGCTTTGAGTGTGTGCCCTGTGGGGCTGGGACCTTCTCAACAAGAGTGCCTCTACAGATGCCA
 GCCTTGTGGAAAGAAGAGTGGGCACCTGAGGGAAAGCCAGACCTGCTTCCCGCAGCTGTGGTGTTTTTG
 GCTTTGCGTGAGCACACCTCTTGGGTGCTGCTGGCAGCTAACACGCTGCTGCTGCTGCTGCTGGGA
 CTGCTGGCCTGTTTGCCTGGCACCTAGACACCCCTGTGGTGCAGGTGAGGAGGAGGGCCGCTGTGCTTCT
 TATGCTGGGCTCCCTGGCAGCAGGTAGTGGCAGCCTCATGGCTTCTTGGGGAACCCACAAGGCCTGCG
 TGCTTGCTACGCCAGGCCCTCTTGGCCTTGGTTTACCATCTTCTGTCTGCTGACAGTTTGGCTCAT
 TCCAATAATCATCATCTTCAAGTTTTCCACCAAGGTACCTACATTCTACCACGCTGGGTCAAAACCA
 CGGTGCTGGCCTGTTGTGATGATCAGCTCAGCGGCCAGCTGCTTATCTGTCTAACTTGGCTGGTGGT
 TGGACCCACTGCCTGCTAGGGAATACCAGCGCTTCCCCATCTGGTGTGCTTGGTGCACAGAGACCA
 ACTCCCTGGGCTTCATACTGGCCTTCTCTACAATGGCCTCCTCTCCATCAGTGCCTTTGGCTGCAGCTA
 CCTGGGTAAGGACTTGCAGAGAACTACAACGAGGCCAAATGTGCACCTTCAGCTGCTCTTCAACTTC
 GTGCTCGGATCGCCTTCTTACCACGGCCAGCGTCTACGACGGCAAGTACCTGCCTGCGGCCAACATGA
 TGCTGGGCTGAGCAGCCTGAGCAGCGCTTCCGTGGGATTTTTCTGCCTAAGTGTACGTGATCCTCTG
 CCGCCAGACCTCAACAGCACAGAGCACTTCCAGGCTCCATTACAGGACTACACGAGGCGCTGCGGCTCC
 ACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC219286 representing NM_138697
 Red=Cloning site Green=Tags(s)

MLLCTARLVGLQLLISCCWAFACHSTESSPDFLPGDYLLAGLFPLHSGCLQVRHRPEVTLCDRSCSFNE
 HGYYHLFQAMRLGVVEEINNSTALLPNITLGYQLYDVCSDSANVYATLRVLSLPGQHHELQGDLLHYSPTV
 LAVIGPDSNRAATTAALLSPFLVPMISYAASSETLSVKRQYPSFLRTIPNDKYQVETMVLKQKFGWTW
 ISLVGSSDDYDGLGVQALENQATGQGICIAFKDIMPFSAQVGDERMQCLMRHLAQAGATVVVVVSSRQLA
 RVFFESVVLTNLTGKVVWVASEAWALSRHITGVPGIQRIGMVLGVAIQKRAVPGLKAFEEAYARADKEAPR
 PCHKGWCSSNQLCRECQAFMAHTMPKPKAFMSMAYNAYRAVYAVAHGLHQLLGCASGACSRGRVYPWQ
 LLEQIHKVHFLHKTVAFNDNRDPLSSYNIIAWDWNGPKWFTFTVLGSSTWSPVQLNINETKIQWHGKDN
 QVPKSVCSDDCLEGHQRVVTGFHHCCFECVPCGAGTFLNKSDLYRCQPCGKEEWAPEGSQTCFPRTVVFL
 ALREHTSWVLLAANTLLLLLLGTAGLFAWHLDTPVRSAGGRLCFMLGSLAAGSGSLYGGFFGEPTRPA
 CLLRQALFALGFTIFLSCLTVRSFQLIIIFKFSTKVPTFYHAWVQNHGAGLFVMISSAAQLLICLTLWLVV
 WTPLPAREYQRFPHLVMLECTETNSLGFILAFLYNGLLSISAFACSYLGKDLPENYNEAKCVTFSLLFNF
 VSWIAFFTTASVYDGKYLPAANMMAGLSSLSSGGYFLPKCYVILCRPDLNSTEHFQASIQDYTRRCGS
 T

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3439_e09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

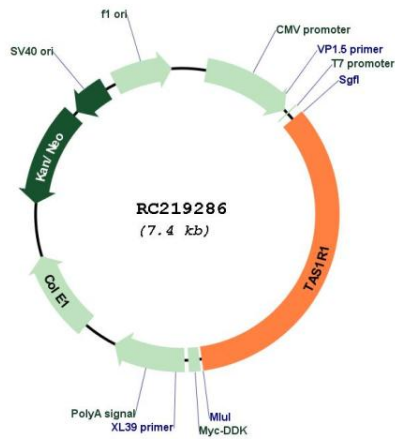


* The last codon before the Stop codon of the ORF

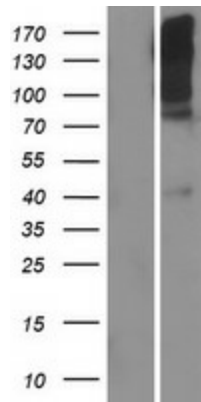
| | |
|-------------------------------|--|
| ACCN: | NM_138697 |
| ORF Size: | 2523 bp |
| OTI Disclaimer: | <p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene 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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p> |
| 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: | <ol style="list-style-type: none"> 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_138697.4 |
| RefSeq Size: | 2707 bp |
| RefSeq ORF: | 2526 bp |
| Locus ID: | 80835 |
| UniProt ID: | Q7RTX1 |
| Cytogenetics: | 1p36.31 |
| Protein Families: | Druggable Genome, Transmembrane |
| Protein Pathways: | Taste transduction |
| MW: | 92.9 kDa |

Gene Summary:

The protein encoded by this gene is a G protein-coupled receptor and is a component of the heterodimeric amino acid taste receptor T1R1+3. The T1R1+3 receptor responds to L-amino acids but not to D-enantiomers or other compounds. Most amino acids that are perceived as sweet activate T1R1+3, and this activation is strictly dependent on an intact T1R1+3 heterodimer. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2010]

Product images:


Circular map for RC219286



Western blot validation of overexpression lysate (Cat# [LY408549]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219286 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).