

Product datasheet for **RG211762**

OR2W5 (NM_001004698) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	OR2W5
Synonyms:	OR2W5P; OST722
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG211762 representing NM_001004698
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCTGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGAAAGGACAATGCCAGTTACCTACAGGCATTTCCTGGTGGGCTCTTCTGATCGGCCTGGACTGG
AGAAAATTCTCTTTGCTGTTATCTTGATCTTCTGCATCCTGACCCTGGTGGGCAACACTGCCATCATCCT
CTTGCTGGTCATGGATGTCAGGCTCCACACCCATGTACTTCTTTCTGGGAATCTGTCTTTCTTAGAT
CTCTGCTTTACAGCAAGCATTGCCCTCAGCTGCTGTGGAACCTGGGGGTCCAGAGAAGACCATCACCT
ACCACGGCTGTGTGGCCAACTCTACATCTACATGATGCTGGGCTCCACCGAGTGCGTCTCTCTGGTTGT
CATGTCCCATGACCGCTATGTGGCCGTCTGCCGGTCCCTGCACTACATGGCAGTCATGCGCCACATCTC
TGCCTGCAGCTGGTGAAGTGTGGCCTGGTGTGTGGCTTCTAACTCCTTCATCATGTGCTCAGACGA
TGCAGCTCTCCCGGTGTGGACGTGCGAGGGTGGACCACTTCTGTGTGAGATGCCTGCTCTTATTGCCAT
GTCTTGTGAGGAAACCATGCTGGTAGAAGCGATTACCTTTGCCCTGGGGGTGGCTCTCTCTCTGGTGCC
GCTCTCCCTCATCTCATCTCTATGGCGTGATTGCAGCCGCGGTGCTGAGGATGAAGTCAGCAGCAGGG
CGAAAGAAAGCCTTCCACACCTGCTCTTCTCACCTCACAGTGGTCTCTCTTCTACGGAACCATCATCT
ACGTGTACCTGAAGCCGCCAACAGCTACTCCAAGATCAGGGGAAGTTCTGACTCTCTTCTACACCAT
CGTCATTCCAGCATCAACCCCTCATCTACACTTTGAGGAACAAGGATGTGAAGGGGACCATGAAGAAA
CTTCTGGGGTGGGAGAAAGGGGCTGGGGAGCCTCAACGAGGGGAACACTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



Protein Sequence:

>RG211762 representing NM_001004698

Red=Cloning site Green=Tags(s)

MGKDNASYLQAFILVGSSDRPGLEKILFAVILIFCILTIVGNTAIIILLVMDVRLHTPMYFFLGNSFLD
LCFTASIAPQLLWNLGGPEKTITYHGCVAQLYIYMLGSTECVLLVVMASHDRYVAVCRSLHYMAVMRPHL
CLQLVTVAWCCGFLNSFIMCPQTMQLSRCGRRRVDFLCEPALIAMSCEETMLVEAIHLCPGGGSPPGA
ALPHPHLLWRDCSRGADEVSSRAKESLPHLLFSPHSGLSLLRNHHLRVPEAGQQLPRSGEVPDSSLHH
RHSQHQPPLHFEEQCEGDHEETSGVGERGWGASTRGTL

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



CTATAGGGCGGCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT

EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI

CAAGCTTAAGCTAGTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- ---

HindIII NheI RsrII MluI NotI XhoI GFP Tag

T R T R P L E M E S D - - -

--- GAA GAA AGA GTT TAA ACGGCCGCCGCGGAGCT

- - E E R V Stop

ACCN:

NM_001004698

ORF Size:

960 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001004698.2](#), [NP_001004698.1](#)

RefSeq Size: 963 bp

RefSeq ORF: 963 bp

Locus ID: 441932

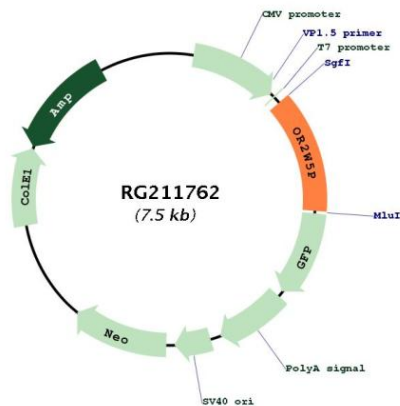
UniProt ID: [A6NFC9](#)

Cytogenetics: 1q44

Protein Families: Transmembrane

Gene Summary: Olfactory receptors interact with odorant molecules in the nose, to initiate a neuronal response that triggers the perception of a smell. The olfactory receptor proteins are members of a large family of G-protein-coupled receptors (GPCR) arising from single coding-exon genes. Olfactory receptors share a 7-transmembrane domain structure with many neurotransmitter and hormone receptors and are responsible for the recognition and G protein-mediated transduction of odorant signals. The olfactory receptor gene family is the largest in the genome. The nomenclature assigned to the olfactory receptor genes and proteins for this organism is independent of other organisms. This olfactory receptor gene has a coding sequence that is comparable in length to other olfactory receptor genes, but it should be noted that a frameshift is present in the 3' coding region that disrupts the 7-transmembrane domain structure in the protein. It is unclear if the protein can function as an olfactory receptor or if an alternate function is served. For this reason, this gene has also been interpreted to be a pseudogene. [provided by RefSeq, Jan 2010]

Product images:



Circular map for RG211762