

Product datasheet for **RG214984**

Olfactory receptor 2A2 (OR2A2) (NM_001005480) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Olfactory receptor 2A2 (OR2A2) (NM_001005480) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Olfactory receptor 2A2
Synonyms:	OR2A2P; OR2A17P; OR7-11; OST008
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214984 representing NM_001005480 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGAAGGCAACCAGACATGGATCACAGACATCACCTGCTGGGATTCAGGTTGGTCCAGCACTGGCGA
TTCTCCTCTGTGGACTCTTCTGTCTTCTATACACTCACCTGCTGGGAATGGGGTCATCTTTGGGAT
TATCTGCCTGGACTCTAAGCTTCACACACCCATGACTTCTTCTCTCACACCTGGCCATCATTGACATG
TCCTATGCTTCCAACAATGTTCCAAGATGTTGGCAAACCTAATGAACCAGAAAAGAACCATCTCCTTTG
TTCCATGCATAATGCAGACTTTTTGTATTTGGCTTTTGTGTTACAGAGTGCCTGATTTTGGTGGTGAT
GTCTATGATAGGTATGTGGCCATCTGCCACCTTTCCAGTACACTGTCATCATGAGCTGGAGAGTGTGC
ACGATCCTGGTTCTCACGTCCTGGTCATGTGGGTTTGGCCTGTCCCTGGTACATGAAATTCCTCTCTAA
GGTTGCCCTTCTGTGGGCCCCGGGATGTGAACCACCTCTTCTGTGAAATTCGTCTGTCCCTCAAGCTGGC
CTGTGCTGACACCTGGGTTAACCAAGTGGTCATATTTGTACCTGTGTGTTTGTCTTAGTCGGGCCTCTT
TCCTTGATTCTGGTCTCCTACATGCACATCCTCGGGCCATCCTGAAGATCCAGACAAAGGAGGGCCGCA
TAAAGGCCTTCTCCACCTGCTCCTCCACCTGTGTGTGGTGGACTATTCTTTGGCATAGCCATGGTGGT
TTACATGGTCCCAGACTTAATCAACGAGAGGAGCAGGAGAAAATGCTGTCCCTGTTTCACAGTGTCTTG
AACCCAATGCTGAACCCCTGATCTACAGCCTGAGGAATGCTCAGTTGAAGGGCGCCCTCCACAGAGCAC
TCCAGAGGAAGAGGTCCATGAGAACGGTGTATGGGCTTTGCCCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG214984 representing NM_001005480
 Red=Cloning site Green=Tags(s)

```
MEGNQTWITDITLLGFQVGPALAILLCGLFSVFYTLTLLGNGVIFGIICLDSKLTHTPMYFFLSHLAIIDM
SYASNNVPKMLANLMNQKRTISFVPCIMQTFLLYLAFAVTECLILVMSYDRYVAICHPPFYTVIMSWRVC
TILVLTWSWCGFALSVEILLRLPFCGPRDYNHLFCEILSVLKLACADTWVNQVVIFATCVFVLVGPL
SLILVSYMHILGAILKIQTKEGRIKAFSTCSSHL CVVGLFFGIAMVVYMPDSNQREEQEKM LSLFHSVL
NPMLNPLIYSLRNAQLK GALHRALQRKSMRTVYGLCL
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001005480

ORF Size: 954 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_001005480.1](#), [NP_001005480.1](#)

RefSeq Size: 957 bp

RefSeq ORF: 957 bp

Locus ID: 442361

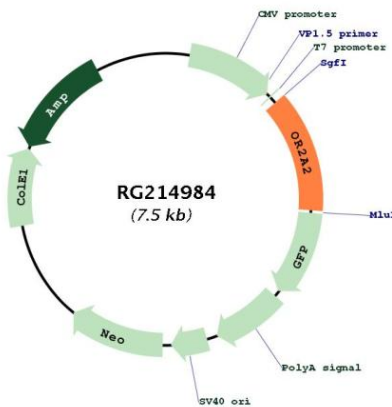
UniProt ID: [Q6IF42](#)

Cytogenetics: 7q35

Protein Pathways: Olfactory transduction

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. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG214984