

## Product datasheet for **RG217007**

### OR1A2 (NM\_012352) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OR1A2 (NM_012352) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OR1A2
Synonyms:	OR17-6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG217007 representing NM_012352 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGAAAGAAAATCAATCCTTTAACCTGGATTTTATTCTCCTGGGAGTTACTAGTCAGCAAGAACAGA  
ATAATGTCTTCTTTGTGATTTTTTTGTGCATTTACCCCATCACACTGACTGGAAATCTGCTCATCATCTT  
GGCCATCTGTGCTGACATTCGCCTTCACAACCCCATGATTTTCTCCTTGCCAACCTCTCCTTGGTTGAC  
ATCATCTTCTCATCCGTAACCATCCCTAAGGTGCTGGCCAACCATCTCTGGGCAGCAAGTTCATCTCCT  
TTGGGGGATGCCTAATGCAGATGATTTTCATGATAGCCTTGCCAAGGCAGACAGCTATACCTTGGCTGC  
AATGGCATACGATCGAGCTGTGGCCATCAGCTGCCCACTTCATTACACAACAATTATGAGTCCACGGTCT  
TGTATCCTGCTTATTGCTGGGTCTTGGGTGATTGGAAACACCAAGTCTCTCCCCCACTCTGCTCACAG  
CTAGTTTGTCTTCTGTGGCAACCAGGAAGTAGCCAATTTCTACTGTGACATTATGCCTTTGCTGAAGTT  
GTCCTGTTCTGACGTCCACTTTAATGTGAAGATGATGTACCTAGGGGTCGGCGTTTTCTCTTTGCCATTA  
CTATGCATCATTGTCTCCTATGTTCAAGTCTTTCCACAGTCTTCCAAGTCCATCTACCAAGAGTCTAT  
TCAAAGCCTTCTGCACCTGTGGCTCCCACCTCACAGTTGTTTTTTATATTATGGTACAACGATGGGCAT  
GTATTTCTGCCCTCTGACCAGTTACAGCCCCAAGATGCAGTGATAACTGTGATGATGTGGCAGTGACC  
CCAGCATTAAATCCTTTTCATCTATAGTCTGAGAAATTGGGATATGAAGGCAGCCCTACAGAACTCTTCA  
GCAAGAGAATCTCTCA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG217007 representing NM\_012352  
 Red=Cloning site Green=Tags(s)

MKKNQSFNLDIFILLGVTSQQEQNNVFFVIFLCIYPITLTGNLLIILAICADIRLHNPYFLLANLSLVD  
 IIFSSVTIPKVLANHLLGSKFISFGGCLMQMYFMIALAKADSYTLAAMAYDRAVAISCPLHYTTIMSPRS  
 CILLIAGSWVIGNTSALPHTLLTASLSFCGNQEVANFYCDIMPLLKLSGSDVHFVNKMMYLGVGVSPLPL  
 LCIIVSYVQVFSTVVFQVPSTKSLFKAFCTCGSHLTVVFLYYGTTMGMYFCPLTSYSPKDAVITVMYVAVT  
 PALNPFIIYSLRNWDMKAALQKLFKRISS

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_012352

**ORF Size:** 927 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\\_012352.1](#), [NP\\_036484.1](#)

**RefSeq Size:** 930 bp

**RefSeq ORF:** 930 bp

**Locus ID:** 26189

**UniProt ID:** [Q9Y585](#)

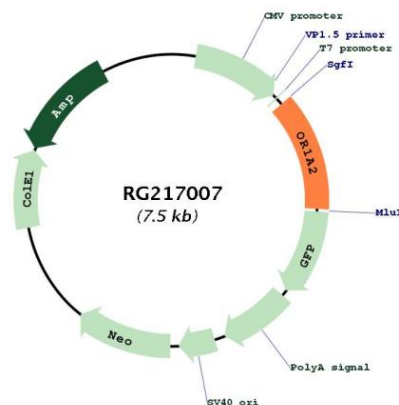
**Cytogenetics:** 17p13.3

**Protein Families:** Druggable Genome, Transmembrane

**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 RG217007