

## Product datasheet for **RG221946**

### OR2A1 (NM\_001005287) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OR2A1 (NM_001005287) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OR2A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG221946 representing NM_001005287 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGGGAAAAATCAGACAATGGTCACAGAGTTCCTCTACTGGGATTTCTCTGGGCCCAAGGATTGAG  
TGCTCCTCTTTGGGCTCTTCTCCCTGTTCTATATCTTCACCTGCTGGGGAACGGGGCCATCCTGGGGCT  
CATCTCACTGGACTCCAGACTCCACACCCCATGACTTCTTCTCTCACACCTGGCTGTCGTCGACATC  
GCCTACACCCGCAACACGGTGCCCGAGATGCTGGCGAACCTCTGCATCCAGCCAAGCCCATCTCCTTTG  
CTGGCTGCATGACGCAGACCTTTCTCTGTTTGAGTTTTGGACACAGCGAATGTCTCCTGCTGGTGTGAT  
GTCTACGATCGTTACGTGGCCATCTGCCACCCTCTCCGATACTCCGTCATCATGACCTGGAGAGTCTGC  
ATCACCTGGCCGTCACCTCCTGGACGTGTGGCTCCCTCCTGGCTCTGGCCCATGTGTTCTCATCTAA  
GACTGCCCTTCTCTGGGCTCATGAAATCAACCACTTCTTCTGTGAAATCCTGTCTGTCCTCAGGCTGGC  
CTGTGCTGACACCTGGCTCAACCAGGTGGTCATCTTTCAGCCTGCGTGTCTTCTGGTGGGGCCACCC  
AGCCTGGTGTCTTCTCCTACTCGCACATCCTGGCGCCATCCTGAGGATCCAGTCTGGGGAGGGCCGCA  
GAAAGGCTTCTCCACCTGCTCCTCCACCTCTGCGTGGTGGGACTCTTCTTTGGCAGTGCCATCATCAT  
GTACATGGCCCCAAGTCCCGCCATCCTGAGGAGCAGAAAAGGTCTTTTTTCTATTTTACAGTTTTTTT  
AACCCAACTTAACCCCTGATTTACAGCCTGAGGAACGGAGAGGTCAAGGGTGCCTGAGGAGAGCAC  
TGGGCAAGGAAAGTCATTCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG221946 representing NM\_001005287  
Red=Cloning site Green=Tags(s)

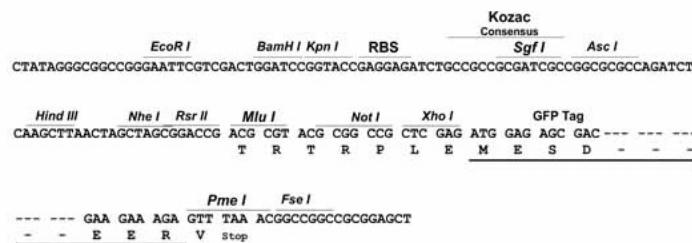
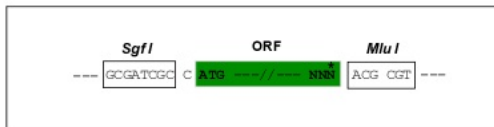
MGENQTMVTEFLLLGFLLGPRIQMLLFGFLSFLFYIFTLLGNGAILGLISLDSRLHTPMYFFLSHLAVVDI  
 AYTRNTVPQMLANLLHPAKPISFAGCMTQTFCLCSFGHSECLLLVMSYDRYVAICHPLRYSVIMTWRVC  
 ITLAVTSWTCGSLALAHVVLILRLPFSGPHEINHFFCEILSVLRLACADTWLNQVVIFAACVFFLVGPP  
 SLVLSVSYSHILAAILRIQSGEGRRKAFSTCSSHLCCVVLFFGSAIMYMAPKSRHPPEEQQKVFFLFYSFF  
 NPTLNPLIYSLRNGEVKALRRALGKESH

TRTRPLE - GFP Tag - V

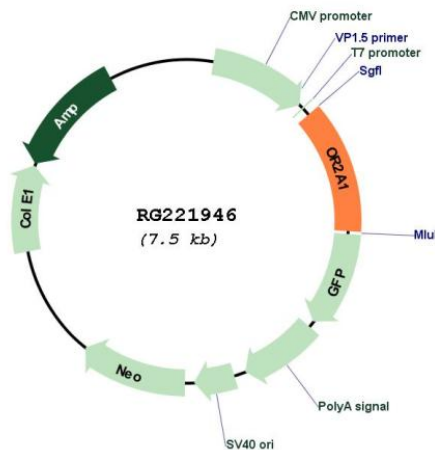
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



**ACCN:** NM\_001005287

**ORF Size:** 930 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001005287.1</a> , <a href="#">NP_001005287.1</a>
<b>RefSeq Size:</b>	933 bp
<b>RefSeq ORF:</b>	933 bp
<b>Locus ID:</b>	346528
<b>UniProt ID:</b>	<a href="#">Q8NGT9</a>
<b>Cytogenetics:</b>	7q35
<b>Protein Families:</b>	GPCR, Transmembrane
<b>Protein Pathways:</b>	Olfactory transduction
<b>Gene Summary:</b>	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]