

## Product datasheet for **RG220021**

### OR4E2 (NM\_001001912) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OR4E2 (NM_001001912) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OR4E2
Synonyms:	OR14-42
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220021 representing NM_001001912 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACAGTCTAAACCAACAAGAGTGACTGAATTTGTCTTCTTGGGACTCACTGATAACCGGTGCTGG  
AAATGCTGTTTTTCATGGCATTCTCAGCCATTTATATGCTAACGCTTTCAGGGAACATTCTCATCATCAT  
TGCCACAGTCTTTACTCCAAGTCTCCATACCCCATGTATTTCTCCTGAGCAATCTGCCTTTATTGAC  
ATCTGCCACTCATCTGTCACTGTGCCTAAGATGTTGGAGGTTTGCTTTTAGAAAGAAAGACCATTTCT  
TTGACAACTGCATCACACAGCTTCTTCTCTACATCTCTTGGCTGTGCCGAGATCTTTCTGCTGATCAT  
TGTGGCGTATGATCGTTACGTGGCTATCTGCACTCCACTCCACTACCCCAATGTGATGAACATGAGAGTC  
TGTATACAGCTTGTCTTTGCTCTCTGGTTGGGGGACTGTTCACTCACTAGGGCAGACCTTCTTGACTA  
TTCGTCTACCTTACTGTGGCCCCAACATTATTGACAGCTACTTCTGTGATGTGCCTTGTGTATCAAGCT  
GGCCTGCACAGATACATACCTCACAGGAATACTGATTGTGACCAATAGTGAACCATCTCCCTCTCCTGT  
TTCTTGGCCGTGGTCACCTCCTATATGGTCATCCTGGTTTCTTCTCGAAAACACTCAGCTGAAGGGCGCC  
AGAAAGCCCTGTCTACCTGCTCGGCCACTTCAATGGTGGTTGCCCTCTTCTTGGCCATGTATCTTCAT  
CTATACTCGGCCAGACACCAGCTTCTCCATTGACAAGTGGTGTCTGTCTTCTACACAGTGGTCACCCCT  
TTGCTGAATCCCTTCATTTACACCTTGAGGAATGAGGAGTAAAAAGTCCATGAAGCAGCTCAGGCAGA  
GACAAGTTTTTTTCACGAAATCATATACA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG220021 representing NM\_001001912  
Red=Cloning site Green=Tags(s)

MDSL NQTRVTEFVFLGLTDNRVLEMLFFMAFS AIYMLT LSGNIL IIIATVFTPSLHTPMYFFL SNLSFID  
 ICHSSVTPKMLEGLLLERKTI SFDNCITQLFFLHLFACAEIFLLIIVAYDRYVAICTPLHYPNVMNMRV  
 CIQLVFALWLG GTVHSLGQTF LIRLPYCGPN IIDSYFCDVPLVIKLACTDTYLTGILIVTNSGTISLSC  
 FLAVVTSY MVILVSLRKHSAEGRQKALSTCSAHFMVVALFFGPCIFIYTRPDTSF SIDKVVSVFYTVVTP  
 LLNPF IYTLRNEEVKSAMKQLRQRQVFFTKSYT

TRTRPLE - GFP Tag - V

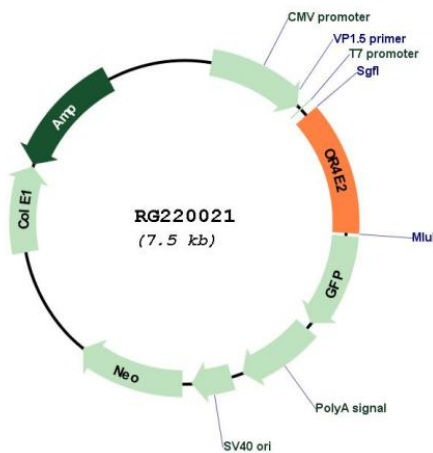
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_001001912

**ORF Size:** 939 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_001001912.1</a> , <a href="#">NP_001001912.1</a>
<b>RefSeq Size:</b>	942 bp
<b>RefSeq ORF:</b>	942 bp
<b>Locus ID:</b>	26686
<b>Cytogenetics:</b>	14q11.2
<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]