

Product datasheet for **RG214778**

OR2AG1 (NM_001004489) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OR2AG1 (NM_001004489) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OR2AG1
Synonyms:	OR2AG3; OR11-79
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214778 representing NM_001004489 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGCTCTGGAACCTCACCTTGGGAAGTGGCTTCATTTTGGTGGGATTCTGAATGACAGTGGGTCTC
CTGAACTGCTCTGTGCTACAATTACAATCCTATACTTGTGGCCCTGATCAGCAATGGCCTACTGCTCCT
GGCTATCACCATGGAAGCCCGCTCCACATGCCATGTACCTCCTGCTTGGCAGCTCTCTCATGGAC
CTCCTGTTACATCTGTTGCTCACTCCCAAGGCCCTTGGGACTTCTGCGCAGAGAAAACACCATCTCCT
TTGGAGGCTGTGCCCTTCAGATGTTCTGGCACTGACAATGGGTGGTGTGAGGACCTCCTACTGGCCTT
CATGGCCTATGACAGGTATGTGGCCATTTGTCATCCTCTGACATACATGACCCTCATGAGCTCAAGAGCC
TGCTGGCTCATGGTGGCCACGTCCTGGATCCTGGCATCCCTAAGTGCCTAATATATACCGTGTATACCA
TGCACTATCCCTTCTGCAGGGCCAGGAGATCAGGCATCTTCTCTGTGAGATCCCACACTTGTGAAGGT
GGCCTGTGCTGATACCTCCAGATATGAGCTCATGGTATATGTGATGGGTGTGACCTTCTGATCCCTCT
CTTGCTGCTATACTGGCCTCCTATACACAAATTCTACTCACTGTGCTCCATATGCCATCAAATGAGGGGA
GGAAGAAAGCCCTGTACCTGCTCTCCACCTGACTGTGGTGGGATGTTCTATGGAGCTGCCACATT
CATGTATGTCTTGCCAGTTCCTCCACAGCACCAGACAAGACAACATCATCTCTGTTTTCTACACAATT
GTCACCTCCAGCCCTGAATCCACTCATCTACAGCCTGAGGAATAAGGAGGTATGCCGGCCTTGAGGAGGG
TCCTGGGAAAATACATGCTGCCAGCACACTCCACGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG214778 representing NM_001004489
 Red=Cloning site Green=Tags(s)

MELWNFTLGSFILVIGILNDSGPELLCATITILYLLALISNGLLLAITMEARLHMPYLLLGQLSLMD
 LLFTSVVTPKALADFLRRENTISFGGCALQMFLALTMGAEDLLAFMAYDRYVAICHPLTYMTLMSSRA
 CWLMVATSWILASLSALIYTVYTMHYPFCRAQEIRHLLCEIPHLLKVACADTSRYELMVYVMGVTFILIPS
 LAAILASYTQILLTVLHMPSNEGRKKALVTCSSHLTVVGMFYGAATFMYVLPSSFHSTRQDNIISVFYTI
 VTPALNPLIYSLRNKEVMRALRRVLGKYMLPAHSTL

TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja3367_a08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_001004489

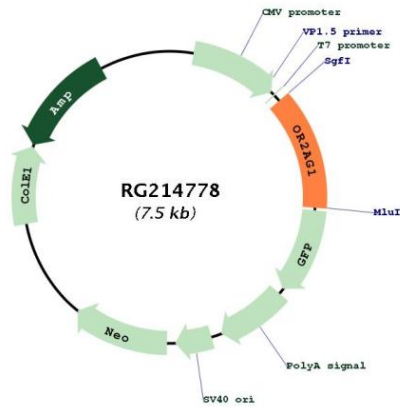
ORF Size: 948 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:	<ol style="list-style-type: none">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:	<u>NM_001004489.2</u> , <u>NP_001004489.1</u>
RefSeq Size:	998 bp
RefSeq ORF:	951 bp
Locus ID:	144125
UniProt ID:	<u>Q9H205</u>
Cytogenetics:	11p15.4
Protein Families:	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. This olfactory receptor gene is a segregating pseudogene, where some individuals have an allele that encodes a functional olfactory receptor, while other individuals have an allele encoding a protein that is predicted to be non-functional. [provided by RefSeq, Jul 2015]

Product images:



Circular map for RG214778