

Product datasheet for **RG223604**

Olfactory Receptor OR2A4 (OR2A4) (NM_030908) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Olfactory Receptor OR2A4 (OR2A4) (NM_030908) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Olfactory Receptor OR2A4
Synonyms:	OR2A10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG223604 representing NM_030908 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGAGACAATATAACATCCATCAGAGAGTTCCTCTACTGGGATTTCCCGTTGGCCCAAGGATTCAGA
TGCTCCTCTTTGGGCTCTTCTCCCTGTTCTACGTCTTCACCCTGCTGGGAACGGGACCATACTGGGGCT
CATCTCACTGGACTCCAGACTGCACGCCCCATGACTTCTTCTCTCACACCTGGCGTCTCGACATC
GCCTACGCCTGCAACACGGTGCCCGGATGCTGGTGAACCTCCTGCATCCAGCCAAGCCCATCTCCTTTG
CGGGCCGCATGATGCAGACCTTTCTGTTTTCCACTTTTGTGTACAGAAATGTCTCCTCCTGGTGGTGTAT
GTCTATGATCTGTACGTGGCCATCTGCCACCCCTCCGATATTTGGCCATCATGACCTGGAGAGTCTGC
ATCACCCCTCGCGGTGACTTCTGGACCCTGGAGTCTTTTATCCTTGATTTCATCTTGTGTTACTTCTAC
CTTTACCTTCTGTAGGCCCCAGAAAATTTATCACTTTTTTTGTGAAATCTTGGCTGTTCTCAAACCTTGC
CTGTGCAGATACCCACATCAATGAGAACATGGTCTTGGCCGGAGCAATTTCTGGGCTGGTGGGACCTTG
TCCACAATTGTAGTTTCATATGTGCATCCTCTGTGCTATCCTTCAGATCCAATCAAGGGAAGTTCAGA
GGAAAGCCTTCCGCACCTGCTTCTCCACCTCTGTGTATTGGACTCGTTTATGGCACAGCCATTATCAT
GTATGTTGGACCCAGATATGGGAACCCCAAGGAGCAGAAGAAATATCTCCTGCTGTTTCACAGCCTCTTT
AATCCCATGCTCAATCCCCTTATCTGTAGTCTTAGGAACCTCAGAAGTGAAGAATACTTTGAAGAGAGTGC
TGGGAGTAGAAAGGGCTTTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG223604 representing NM_030908
 Red=Cloning site Green=Tags(s)

MGDNITSIREFLLLGFPVGPRIQMLLFGLFSLFYVFTLLNGTILGLISLDSRLHAPMYFFLSHLAVVDI
 AYACNTVPRMLVNLLHPAKPISFAGRMMQTFLFSTFAVTECLLLVMSYDLYVAICHPLRYLAIMTWRC
 ITLAVTSWTTGVLLSLIHLVLLPLPFCRPQKIYHFFCEILAVLKLACADTHINENMVLAGAISGLVGPL
 STIVVSYMCILCAILQIQSREVQRKAFRTCFSHLCVIGLVYGTAIMYVGPVRYGNPKEQKKYLLLFHSLF
 NPMLNPLICSLRNSEVKNTLKRVLGVERAL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_030908

ORF Size: 930 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_030908.2](#)

RefSeq Size: 933 bp

RefSeq ORF: 933 bp

Locus ID: 79541

UniProt ID: [O95047](#)

Cytogenetics: 6q23.2

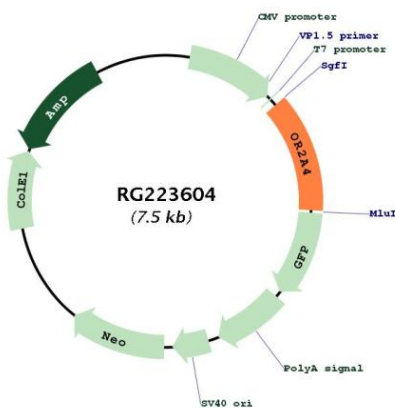
Domains: 7tm_1

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 RG223604