

Product datasheet for **RG211846**

OR4K1 (NM_001004063) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	OR4K1
Synonyms:	OR14-19
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG211846 representing NM_001004063
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTCACACAAATGAATCGATGGTGTCTGAGTTGTACTTTGGGACTCTCTAATTCCTGGGACTTC
AACTTTTCTTTTCGCCATCTTCTCTATAGTCTATGTGACATCAGTGCTAGGCAATGTCTTAATTATTGT
CATTATTTCTTTTGAATCTCCTATGTACTTCTTGCTCAGTAATCTTTCTTTTATTGAT
ATCTGTCAGTCTAACTTTGCCACCCCAAGATGCTTGAGACTTTTTATTGAGCGCAAGACTATCTCCT
TTGAGGGTTGCATGGCCAGATATTCGTTCTCACAGTTTTGTTGGGAGTGAGATGATGTTGCTTGAGC
TATGGCATATGACAGTTTATAGCCATATGTAAGCCTCTGCACTACAGTACAATTATGAACCGGAGGCTC
TGTGTAATTTTGTGTCTATTTCTGGGCGGTGGGCGTTCTTCATTCTGTGAGCCACTTGGCTTTTACAG
TGGACCTGCCATTCTGTGGTCCCAATGAGGTGGATAGCTTCTTTGTGACCTTCCCTTGGTGATAGAGCT
GGCTTGCATGGATACATATGAAATGGAAATTATGACCCTAACGAACAGTGGCCTGATATCATTGAGCTGT
TTCTGGCTTTAATTATTTCTACACCATCATTTTGATCGGTGTCGGATGCAGGTCTCCAGTGGGTCAT
CTAAGGCTCTTTTACATTAAGTCCACATCACAGTGGTCACTTTCTTCTCGGCGCTTGCAATTTATTT
CTATATATGGCCTTTTACAGACTTCTGTGGACAAATTTCTTTCTGTGTTCTACACTGTTTGTACTCCC
TTGTTGAACCCATCATCTACTCTTTGAGGAATGAAGATGTTAAAGCAGCCATGTGAAGCTGAGAAACC
ATCATGTGAACTCTGGAATAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



Protein Sequence:

>RG211846 representing NM_001004063

Red=Cloning site Green=Tags(s)

MAHTNESMVSEFVLLGLSNSWGLQLFFFAIFSIVYVTSVLGNVLIIVIIISFDSHLNSPMYFLLSNLSFID
ICQSNFATPKMLVDFFIERTKISFEGCMAQIFVLHSFVGSEMMLLVAMAYDRFIAICKPLHYSTIMNRL
CVIFVSIWAVGLHSVSHLAFTVDLPFCGPNEVDSFFCDLPLVIELACMDTYEMEIMTLTNSGLISLSC
FLALIIISYTIILIGVRCRSSGSSKALSTLTAHITVVILFFGPCIYFYIWPFSRLPVDKFLSVFYTVCTP
LLNPIIYSLRNEDVKAAMWKLNRHHVNSWKN

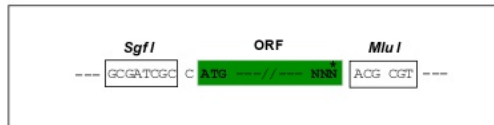
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



CTATAGGGCGGCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT

EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI

CAAGCTTAAGTCTAGTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC ---

HindIII NheI RsrII MluI NotI XhoI GFP Tag

T R T R P L E M E S D - - -

--- GAA GAA AGA GTT TAA ACGGCCGCCGCGGAGCT

- - E E R V Stop

ACCN:

NM_001004063

ORF Size:

933 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:

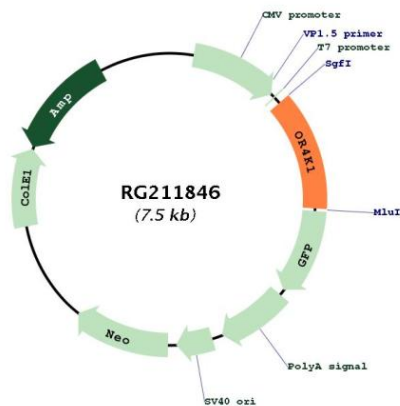
This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_001004063.1</u> , <u>NP_001004063.1</u>
RefSeq Size:	936 bp
RefSeq ORF:	936 bp
Locus ID:	79544
UniProt ID:	<u>Q8NGD4</u>
Cytogenetics:	14q11.2
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. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG211846