

## Product datasheet for RC220872

### OR4N2 (NM\_001004723) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OR4N2 (NM_001004723) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OR4N2
Synonyms:	OR14-8; OR14-13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220872 representing NM_001004723 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAAGCGAGAACAGAACAGTGATAAGAGAATTCATCCTCCTTGGTCTGACCCAGTCTCAAGATATTC  
AGCTCCTGGTCTTTGTGCTAGTTTTAATATTCTACTTCATCATCCTCCCTGGAAATTTTCTCATTATTTT  
CACCATAAAGTCAGACCCTGGGCTCACAGCCCCCTCTATTTCTTTCTGGGCAACTTGGCCTTCCTGGAT  
GCATCCTACTCCTTCATTGTGGCTCCCCGGATGTTGGTGGACTTCCTCTCTGCGAAGAAGATAATCTCCT  
ACAGAGGCTGCATCACTCAGCTTTTTTCTTGCACTTCCTTGGAGAGGGGAGGGATTACTCCTTGTGTG  
GATGGCCTTTGACCGCTACATCGCCATCTGCCGGCCTCTGCACTATCCTACTGTGATGAACCTAGAAC  
TGCTATGCAATGATGTTGGCTCTGTGGCTTGGGGTTTTGTCCACTCCATTATCCAGGTGGTCTCATCC  
TCCGCTTGCCTTTTTGTGGCCAAACCAGCTGGACAACCTCTTCTGTGATGTCCACAGGTGATCAAGCT  
GGCCTGCACCGACACATTTGTGGTGGAGCTTCTGATGGTCTTCAACAGTGGCCTGATGACTCCTGTGC  
TTTCTGGGGCTTCTGGCCTCCTATGCAGTCATTCTTTGTGCGATACGAGGGTCTTCTTCTGAGGCAAAA  
ACAAGGCCATGTCCACGTGCATACCCATATCATTGTTATATTCTTCATGTTGGACCTGGCATCTTCAT  
CTACACGCGCCCTTCAGGGCTTTCCAGCTGACAAGGTGGTTTCTCTCTCCACACAGTGATTTTTCT  
TTGTTGAATCCTGTCAATTTATACCTTCGCAACCAGGAAGTAAAAGCTTCCATGAAAAAGGTGTTAATA  
AGCACATAGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC220872 representing NM\_001004723  
Red=Cloning site Green=Tags(s)

MESENRTVIREFILLGLTQSQDIQLLVFVLVLIIFYFIIILPGNFLIIFTIKSDPGLTAPLYFFLGNLAFLD  
 ASYSFIVAPRMLVDFLSAKKIIISYRGCITQLFFLHFLGGEGLLLVMMAFDRIYAIICRPLHYPTVMNPRT  
 CYAMMLALWLGGFVHSIIQVVLILRLPFCGPNQLDNFFCDVPOVIKLACTDTFVVELLMVFNSGLMTLLC  
 FLGLLASAVILCRIRGSSSEAKNKAMSTCITHIIVIFFMFGPGIFIYTRPFRAFADKVVSLFHTVIFP  
 LLNPVIYTLRNQEVKASMKKVFNKHIA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8002\\_f07.zip](https://cdn.origene.com/chromatograms/mk8002_f07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001004723

**ORF Size:** 921 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\\_001004723.3](#)

**RefSeq Size:** 924 bp

**RefSeq ORF:** 924 bp

**Locus ID:** 390429

**UniProt ID:** [Q8NGD1](#)

**Cytogenetics:** 14q11.2

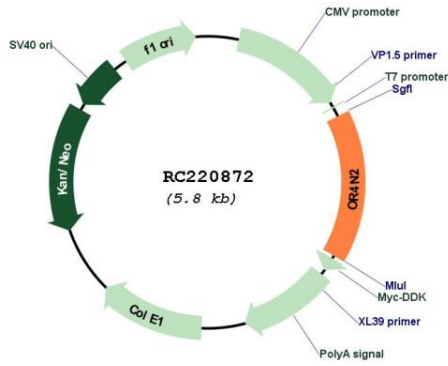
**Protein Families:** Transmembrane

**Protein Pathways:** Olfactory transduction

**MW:** 34.5 kDa

**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 seven-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, Mar 2014]

Product images:



Circular map for RC220872