

Product datasheet for **RC213504**

OR2AK2 (NM_001004491) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	OR2AK2 (NM_001004491) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OR2AK2
Synonyms:	OR1-47; OR2AK1P
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213504 representing NM_001004491 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAACATTTTCAGATGTCATCTCCTTTGATATTTGGTTTCAGCCATGAAAACAGGAAATCAAAGTTTTG
GGACAGATTTTCTACTTGTGGTCTTTTCCAATATGGCTGGATAAACTCTTCTCTTTGTCGTCATTGC
CACCTCTTTACAGTTGCTCTGACAGGAAATATCATGCTGATCCACCTCATTGACTGAACACCAGACTC
CACACTCCAATGTAATTTCTGCTCAGTCAGCTCTCCATCGTTGACCTCATGTACATCTCCACCACAGTGC
CCAAGATGGCAGTCAGCTTCTCTCACAGAGTAAGACCATTAGATTTTTGGGCTGTGAGATCAAACGTA
TGTGTTCTTGGCCCTTGGTGGAACTGAAGCCCTTCTCCTTGGTTTTATGTCTTATGATCGCTATGTAGT
ATCTGTACCCCTTACATTATCCTATGCTTATGAGCAAGAAGATCTGCTGCCTCATGTTGCATGTGCAT
GGGCCAGTGGTTCTATCAATGCTTTTACATACATACATTGTATGTGTTTCAGCTTCCATTCTGTAGGCTCTG
GCTCATAAACCCTTTTCTGTGAAGTTCAGCTCTACTATCATTGGTGTGTCAGGACACCTCCCAGTAT
GAGTATACAGTCTCCTGAGTGGACTTATTATCTTGTACTACCATTCCTAGCCATTCTGGCTTCTATG
CTCGTGTGCTTATTGTGGTATTCCAGATGAGCTCAGGAAAAGGACAGGCAAAAGCTGTTCCACTTGTTCC
CTCCCACCTGATTGTGGCAAGCCTGTTCTATGCAACCACTCTCTTTACCTACACAAGGCCACACTCCTTG
CGTTCCTTACGGGATAAGGCGGTGGCAGTATTTACACCATTGTACACCTCTACTGAACCCATTTA
TCTACAGCTGAGAAATAAGGAAGTGACGGGGCAGTGAGGAGACTGTTGGGATATTGGATATGCTGTAG
AAAATATGACTTCAGATCTCTGTAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC213504 representing NM_001004491
Red=Cloning site Green=Tags(s)

MNISDVISFDILVSAMKTGNQSFQDFFLLVGLFQYGWINSLLFVVIATLFTVALTGNIMLIHLIRLNTRL
 HTPMYFLLSQLSIVDLMYISTTVPKMAVSFLSQSKTIRFLGCEIQTYVFLALGGTEALLLGFMSYDRYVA
 ICHPLHYPLMSKKICCLMVACAWAGSINAFIHTLYVFLPFCRSRLINHHFCEVPALLSLVCQDTSQY
 EYTVLLSGLIILLPLFLAILASYARVLI VVFQMSSGKGQAKAVSTCSSHLIVASLFYATTLFTYTRPHSL
 RSPSRDKAVAVFYITVPLLNPFIYSLRNKEVTGAVRRLLGYWICCRKYDFRSLY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8002_c11.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_001004491

ORF Size: 1005 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_001004491.1](#), [NP_001004491.1](#)

RefSeq Size: 1008 bp

RefSeq ORF: 1008 bp

Locus ID: 391191

UniProt ID: [Q8NG84](#)

Cytogenetics: 1q44

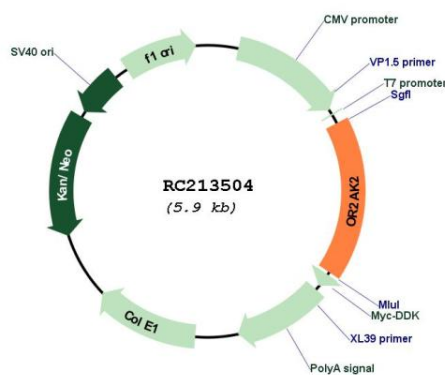
Protein Families: Transmembrane

Protein Pathways: Olfactory transduction

MW: 37.6 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 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 RC213504