

## Product datasheet for RC217891

### OR51G1 (NM\_001005237) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	OR51G1 (NM_001005237) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	OR51G1
Synonyms:	OR11-29; OR51G3P
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217891 representing NM_001005237 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACAATTCTTCTTAATAGCAGCCTCAAAGAGCCACTTTCTTCTGACGGGCTTCCAAGGTCTAGAAG  
GTCTCCATGGCTGGATCTCTATTCCCTTCTGCTTCATCTACCTGACAGTTATCTGGGGAACCTCACCAT  
TCTCCACGTCATTTGACTGATGCCACTCTCCATGGACCCATGTACTATTTCTGGGCATGCTAGCTGTC  
ACAGACTTAGGCCTTTGCCTTTCCACACTGCCACTGTGCTGGCATTCTTCTGGTTTGATACCAGAGAGA  
TTGGCATCCCTGCCTGTTTCACTCAGCTCTTCTCATCCACACCTGTCTCAATGGAGTCATCAGTTCT  
GTATCCATGTCCATTGACCGCTACGTGGCCGTCTGCAACCCACTGCATGACTCCACCGTCTGACACCT  
GCATGTATTGTCAAGATGGGGCTAAGCTCAGTGCTTAGAAGTGCTCCTCATCCTCCCCTTGCCATTCC  
TCCTGAAGCGCTTCCAATACTGCCACTCCCATGTGCTGGCTCATGCTTATTGTCTTACCTGGAGATCAT  
GAAGCTGGCCTGCTCTAGCATCATTGTCAATCACATCTATGGGCTCTTTGTTGTGGCCTGCACCGTGGGT  
GTGGACTCCCTGCTCATCTTTCTCTACACCCCTCATCTTCGCACCGTGTGCTCAGCATTGCCTCCCACC  
AGGAGCGACTCCGAGCCCTCAACACCTGTGTCTCATATCTGTGCTGTACTGCTTCTACATCCCCTAT  
GATTGGCTTGTCTTTGTGCATCGCTTTGGTGAACATCTGCCCGCGTTGTACACCTCTTCATGTCTAT  
GTGTATCTGCTGGTACCACCCCTTATGAACCCATCATCTACAGCATCAAGACCAAGCAAATTCGCCAGC  
GCATCATTAAAGAGTTTCAGTTTATAAAGTCACCTTAGGTGTTTTTGAAGGAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC217891 representing NM\_001005237  
Red=Cloning site Green=Tags(s)

MTILLNSSLQRATFFLTGFGLEGLHGWISIPFCFIYLTVILGNLTILHVICTDATLHGPMYYFLGMLAV  
 TDGLCLSTLPTVLGIFWFDTREIGIPACFTQLFFIHTLSSMESSVLLSMSIDRYAVCNPLHDSTVLT  
 ACIVKMGLSSVLSALLILPLPFLKRFQYCHSHVLAHAYCLHLEIMKLACSSIIVNHIYGLFVVACTVG  
 VDSLLIFLSYALILRTVLSIASHQERLRALNTCVSHICAVLLFYIPMIGLSLVHRFGEHLPRVVHLFMSY  
 VYLLVPPLMNPPIIYSIKTKQIRQRIIKKFQFIKSLRCFWKD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8003\\_e07.zip](https://cdn.origene.com/chromatograms/mk8003_e07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001005237

**ORF Size:** 963 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\\_001005237.1](#), [NP\\_001005237.1](#)

**RefSeq Size:** 966 bp

**RefSeq ORF:** 966 bp

**Locus ID:** 79324

**UniProt ID:** [Q8NGK1](#)

**Cytogenetics:** 11p15.4

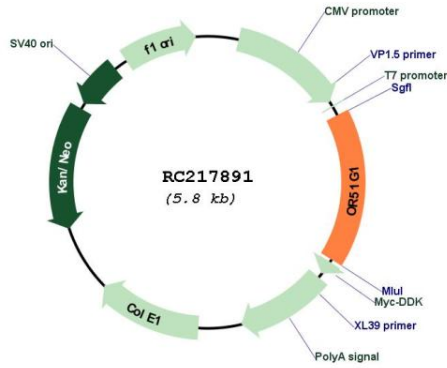
**Protein Families:** Transmembrane

**Protein Pathways:** Olfactory transduction

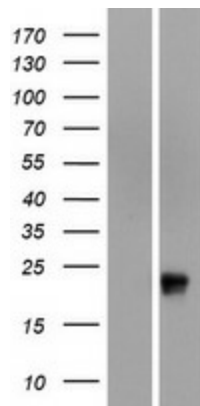
**MW:** 36.1 kDa

**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. 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, Jun 2015]

Product images:



Circular map for RC217891



Western blot validation of overexpression lysate (Cat# [LY423817]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217891 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).