

## Product datasheet for **RG214331**

### Sigma1 receptor (SIGMAR1) (NM\_147157) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Sigma1 receptor (SIGMAR1) (NM\_147157) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** SIGMAR1  
**Synonyms:** ALS16; DSMA2; hSigmaR1; OPRS1; SIG-1R; sigma1R; SR-BP; SR-BP1; SRBP  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG214331 representing NM\_147157  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCAGTGGGCCGTGGCCGGCGGTGGCGTGGCCGCGCTGCTCCTGGCTGTCGCAGCGGTGCTGACCC  
 AGGTCGCTGGCTCTGGCTGGGTACGCAGAGCTTCGCTCTCCAGCGGAAGAGATAGCGCAGTTGGCGCG  
 GCAGTACGCTGGCTGGACCACGAGCTGGCCTTCTCTCGTCTGATCGTGGAGCTGCGGGCGGTGCACCCA  
 GGCCACGTGCTGCCGACGAGGAGCTGCAGTGGGTGTTCTGTAATGCGGGTGGCTGGATGGCGCCATGT  
 GCCTTCTGCACGCTCGCTGTCCGAGTATGTGCTGCTCTTCGGCACCGCCTTGGGCTCCCGCGCCACTC  
 GGGGAGACGGTAGTACACGGCCCTGGTGGAGCAACAGCTGTGGAGTGGGGGCAACACATGGATGGTG  
 GAGTACGGCCGGGGCGTCATCCCATCCACCTGGCCTTCGCGCTGGCCGACACTGTCTTACGACCCAGG  
 ACTTCTCACCTCTTCTATACTCTTCGCTCTATGCTCGGGCCTCCGGCTTGAGCTCACACCTACCT  
 CTTTGGCCAGGACCT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG214331 representing NM\_147157  
 Red=Cloning site Green=Tags(s)

MQWAVGRRWAAALLLAVA AVL TQVVWLWLTQSFVVFQREEIAQLARQYAGLDHELAFSRLIVELRRLHP  
 GHVLPDEELQWVFNAGGWMGAMCLLHASLSEYVLLFGTALGSRHSGETVVHGPGEATAVEWGPNTWMV  
 EYGRGVIPTLAFALADTVFSTQDFLTLFYTLRSYARGLRLELTTYLFGQDP

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI



**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_147157

**ORF Size:** 576 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\\_147157.2](#)

**RefSeq Size:** 1580 bp

**RefSeq ORF:** 579 bp

**Locus ID:** 10280

**UniProt ID:** [Q99720](#)

**Cytogenetics:** 9p13.3

**Domains:** ERG2\_Sigma1R

**Protein Families:** Druggable Genome, GPCR, Transmembrane

**Gene Summary:** This gene encodes a receptor protein that interacts with a variety of psychotomimetic drugs, including cocaine and amphetamines. The receptor is believed to play an important role in the cellular functions of various tissues associated with the endocrine, immune, and nervous systems. As indicated by its previous name, opioid receptor sigma 1 (OPRS1), the product of this gene was erroneously thought to function as an opioid receptor; it is now thought to be a non-opioid receptor. Mutations in this gene has been associated with juvenile amyotrophic lateral sclerosis 16. Alternative splicing of this gene results in transcript variants encoding distinct isoforms. [provided by RefSeq, Aug 2013]