

## **Product datasheet for TR311014**

## OriGene Technologies, Inc.

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## Nociceptin receptor (OPRL1) Human shRNA Plasmid Kit (Locus ID 4987)

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** Nociceptin receptor (OPRL1) Human shRNA Plasmid Kit (Locus ID 4987)

**Locus ID:** 4987

Synonyms: KOR-3; KOR3; NOCIR; NOP; NOPr; OOR; OPRL; ORL1; PNOCR

**Vector:** pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection: Format:

Retroviral plasmids

Components: OPRL1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

4987). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

RefSeq: NM 000913, NM 001200019, NM 001318853, NM 001318854, NM 001318855, NM 182647,

NM 182647.1, NM 182647.2, NM 182647.3, NM 000913.1, NM 000913.2, NM 000913.3, NM 000913.4, NM 000913.5, NM 001200019.1, BC038433, BC038433.1, NM 001200019.2,

NM 182647.4, NM 000913.6

UniProt ID: P41146

**Summary:** The protein encoded by this gene is a member of the 7 transmembrane-spanning G protein-

coupled receptor family, and functions as a receptor for the endogenous, opioid-related neuropeptide, nociceptin/orphanin FQ. This receptor-ligand system modulates a variety of biological functions and neurobehavior, including stress responses and anxiety behavior, learning and memory, locomotor activity, and inflammatory and immune responses. A promoter region between this gene and the 5'-adjacent RGS19 (regulator of G-protein signaling 19) gene on the opposite strand functions bi-directionally as a core-promoter for both genes, suggesting co-operative transcriptional regulation of these two functionally related genes. Alternatively spliced transcript variants have been described for this gene. A recent study provided evidence for translational readthrough in this gene, and expression of an additional C-terminally extended isoform via the use of an alternative in-frame translation

termination codon. [provided by RefSeq, Dec 2017]





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shRNA Design:

These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. If you need a special design or shRNA sequence, please utilize our <a href="mailto:custom shRNA service">custom shRNA service</a>.

Performance Guaranteed: OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).