OPRD1 siRNA – Delta-Type Opioid Receptor (Rat)

PRODUCT OVERVIEW

Product Name	OPRD1, siRNA
Full Product Name	OPRD1 siRNA (Rat)
Product Gene Name	OPRD1 sirna
Product Synonym Names	ROR-A; Delta-type opioid receptor; D-OR-1; DOR-1; Opioid receptor A
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	OPRD1 siRNA (Rat) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Molecular Weight	40,450 Da
3D Structure	ModBase 3D Structure for P33533
Negative Control	siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection.
Quality Control	Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.
Directions for Use	We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well).
Components	We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of rat OPRD1 gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo.
Applications Tested/Suitable for OPRD1 sirna	RNA Interference (RNAi)
Related Product Information for OPRD1 sirna	MBS8217238 is an siRNA targeting OPRD1. Also known as OPRD1 siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit OPRD1 expression using RNA interference
Other Notes	Small volumes of OPRD1 sirna vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for OPRD1. It may not necessarily be applicable to this product.

NCBI GI #	6981308

NCBI GeneID	24613
NCBI Accession #	NP_036749.1
UniProt Primary Accession #	P33533
UniProt Related Accession #	P33533
GenBank Nucleotide #	NM_012617.1
NCBI Official Full Name	delta-type opioid receptor
NCBI Official Synonym Full Names	opioid receptor, delta 1
NCBI Official Symbol	Oprd1
UniProt Protein Name	Delta-type opioid receptor
UniProt Synonym Protein Names	Opioid receptor A
Protein Family	Delta-type opioid receptor
UniProt Gene Name	Oprd1
UniProt Synonym Gene Names	Ror-a; D-OR-1; DOR-1
UniProt Entry Name	OPRD_RAT
NCBI Protein Information	delta-type opioid receptor
NCBI Summary for OPRD1	receptor for ligand D-Pen2, D-Pen5-enkephalin [RGD, Feb 2006]
UniProt Comments for OPRD1	DOR-1: delta opioid receptor, a G-protein coupled receptor. Inhibits neurotransmitter release by reducing calcium ion currents and increasing potassium ion conductance. Highly stereoselective. Receptor for enkephalins. Protein type: GPCR, family 1; Membrane protein, multi-pass; Membrane protein, integral; Receptor, GPCR Cellular Component: postsynaptic membrane; membrane; integral to plasma membrane; cytoplasm; plasma membrane; integral to membrane; nerve terminal; intrinsic to plasma membrane; vesicle; lipid raft Molecular Function: neuropeptide binding; opioid receptor activity Biological Process: adult locomotory behavior; regulation of calcium ion transport; positive regulation of peptidyl-serine phosphorylation; negative regulation of protein oligomerization; G-protein signaling, coupled to cyclic nucleotide second messenger; synaptic transmission; G-protein coupled receptor protein signaling pathway; regulation of mitochondrial membrane potential; protein import into nucleus, translocation; neuropeptide signaling pathway; G-protein signaling, coupled to IP3 second messenger (phospholipase C activating); G-protein signaling, adenylate cyclase inhibiting pathway; regulation of sensory perception of pain; dopamine receptor, adenylate cyclase activating pathway
Research Articles on OPRD1	**1.** oxymatrine can attenuate the development of UC by regulating the DOR-beta-arrestin1-Bcl-2 signal transduction pathway.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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