HTR7 siRNA – 5-Hydroxytryptamine Receptor 7 (Rat)

PRODUCT OVERVIEW

Product Name	HTR7, siRNA
Full Product Name	HTR7 siRNA (Rat)
Product Gene Name	HTR7 sirna
Product Synonym Names	5-hydroxytryptamine receptor 7; 5-HT-7; 5-HT7; 5-HT-X; GPRFO; Serotonin receptor 7
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	HTR7 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	48,428 Da
3D Structure	ModBase 3D Structure for P32305
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 HTR7 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 HTR7 sirna	RNA Interference (RNAi)
Related Product Information for HTR7 sirna	MBS8220892 is an siRNA targeting HTR7. Also known as HTR7 siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit HTR7 expression using RNA interference
Other Notes	Small volumes of HTR7 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 HTR7. It may not necessarily be applicable to this product.

NCBI GI #	12621102
NCBI GeneID	65032

NCBI Accession #	NP_075227.1
UniProt Primary Accession #	P32305
UniProt Secondary Accession #	P97936
UniProt Related Accession #	P32305
GenBank Nucleotide #	NM_022938.2
NCBI Official Full Name	5-hydroxytryptamine receptor 7
NCBI Official Synonym Full Names	5-hydroxytryptamine (serotonin) receptor 7, adenylate cyclase-coupled
NCBI Official Symbol	Htr7
NCBI Official Synonym Symbols	5Ht7
UniProt Protein Name	5-hydroxytryptamine receptor 7
UniProt Synonym Protein Names	5-HT-X; GPRFO; Serotonin receptor 7
Protein Family	5-hydroxytryptamine receptor
UniProt Gene Name	Htr7
UniProt Synonym Gene Names	5-HT-7; 5-HT7
UniProt Entry Name	5HT7R_RAT
NCBI Protein Information	5-hydroxytryptamine receptor 7
NCBI Summary for HTR7	receptor for 5-hydroxytryptamine; involved in modulatory action on cerebellar function [RGD, Feb 2006]
UniProt Comments for HTR7	5-HT(7): This is one of the several different receptors for 5- hydroxytryptamine (serotonin), a biogenic hormone that functions as a neurotransmitter, a hormone, and a mitogen. The activity of this receptor is mediated by G proteins that stimulate adenylate cyclase. Belongs to the G-protein coupled receptor 1 family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, multi-pass; Membrane protein, integral; Receptor, GPCR; GPCR, family 1 Cellular Component: synaptic vesicle; rough endoplasmic reticulum; cell soma; dendrite; plasma membrane; integral to membrane; nerve terminal Molecular Function: serotonin receptor activity; neurotransmitter receptor activity Biological Process: circadian rhythm; urinary bladder smooth muscle contraction; negative regulation of circadian sleep/wake cycle, REM sleep; vasoconstriction; serotonin receptor, adenylate cyclase activating pathway; micturition; memory; negative regulation of serotonin secretion; synaptic transmission; G-protein signaling, coupled to cyclic nucleotide second messenger; detection of mechanical stimulus involved in sensory perception of pain; behavioral response to pain; smooth muscle contraction; response to electrical stimulus; serotonin receptor signaling pathway; response to corticosterone stimulus
Research Articles on HTR7	**1.** This study represents a starting point about the impact of developmental 5-HT7-R activation on neuro-physiology of attentive processes, executive functions and their neural substrates.
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