GUCY2F siRNA – Retinal Guanylyl Cyclase 2 (Human)

PRODUCT OVERVIEW

Product Name	GUCY2F, siRNA
Full Product Name	GUCY2F siRNA (Human)
Product Gene Name	GUCY2F sirna
Product Synonym Names	GUC2F; RETGC2; Retinal guanylyl cyclase 2; RETGC-2; Guanylate cyclase 2F. retinal; Guanylate cyclase F; GC-F; Rod outer segment membrane guanylate cyclase 2; ROS-GC2
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	GUCY2F siRNA (Human) 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	124,850 Da
OMIM	300041
3D Structure	ModBase 3D Structure for P51841
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 human GUCY2F 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 GUCY2F sirna	RNA Interference (RNAi)
Related Product Information for GUCY2F sirna	MBS8213393 is an siRNA targeting GUCY2F. Also known as GUCY2F siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit GUCY2F expression using RNA interference
Other Notes	Small volumes of GUCY2F 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 GUCY2F. It may not necessarily be applicable to this product.

NCBI GI #	134152694
NCBI GeneID	2986
NCBI Accession #	NP_001513.2
UniProt Primary Accession #	P51841
UniProt Secondary Accession #	Q9UJF1
UniProt Related Accession #	P51841
GenBank Nucleotide #	NM_001522.2
NCBI Official Full Name	retinal guanylyl cyclase 2
NCBI Official Synonym Full Names	guanylate cyclase 2F, retinal
NCBI Official Symbol	GUCY2F
NCBI Official Synonym Symbols	CYGF; GC-F; GUC2F; GUC2DL; RETGC-2; ROS-GC2
UniProt Protein Name	Retinal guanylyl cyclase 2
UniProt Synonym Protein Names	Guanylate cyclase 2F, retinal; Guanylate cyclase F; GC-F; Rod outer segment membrane guanylate cyclase 2; ROS-GC2
Protein Family	Retinal guanylyl cyclase
UniProt Gene Name	GUCY2F
UniProt Synonym Gene Names	GUC2F; RETGC2; RETGC-2; GC-F; ROS-GC2
UniProt Entry Name	GUC2F_HUMAN
NCBI Protein Information	retinal guanylyl cyclase 2
NCBI Summary for GUCY2F	The protein encoded by this gene is a guanylyl cyclase found predominantly in photoreceptors in the retina. The encoded protein is thought to be involved in resynthesis of cGMP after light activation of the visual signal transduction cascade, allowing a return to the dark state. This protein is a single-pass type I membrane protein. Defects in this gene may be a cause of X-linked retinitis pigmentosa. [provided by RefSeq, Dec 2008]
UniProt Comments for GUCY2F	GUCY2F: Probably plays a specific functional role in the rods and/or cones of photoreceptors. It may be the enzyme involved in the resynthesis of cGMP required for recovery of the dark state after phototransduction. Belongs to the adenylyl cyclase class-4/guanylyl cyclase family. Protein type: Nucleotide Metabolism - purine; Protein kinase, dual-specificity (receptor); Lyase; Protein kinase, RGC; Kinase, protein; EC 4.6.1.2; Guanylyl cyclase; Membrane protein, integral; Receptor, misc.; RGC group; RGC family Chromosomal Location of Human Ortholog: Xq22 Cellular Component: nuclear outer membrane; integral to plasma membrane Molecular Function: guanylate cyclase activity; protein homodimerization activity; GTP binding; protein heterodimerization activity; receptor activity; ATP binding; protein kinase activity Biological Process: rhodopsin mediated signaling; cGMP biosynthetic process; phototransduction, visible light; regulation of rhodopsin mediated signaling; visual perception; receptor guanylyl cyclase signaling pathway; protein amino acid phosphorylation
Research Articles on GUCY2F	**1.** Observational study of gene-disease association and gene-environment interaction. (HuGE Navigator)
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.

Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/human-sirna/gucy2f/8213393