GIF siRNA – Gastric Intrinsic Factor (Human)

PRODUCT OVERVIEW

Product Name	GIF, siRNA
Full Product Name	GIF siRNA (Human)
Product Gene Name	GIF sirna
Product Synonym Names	IFMH; Gastric intrinsic factor; Intrinsic factor; IF; INF
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	GIF 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	42,698 Da
OMIM	261000
3D Structure	ModBase 3D Structure for P27352
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 GIF 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 GIF sirna	RNA Interference (RNAi)
Related Product Information for GIF sirna	MBS8203247 is an siRNA targeting GIF. Also known as GIF siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit GIF expression using RNA interference
Other Notes	Small volumes of GIF 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 GIF. It may not necessarily be applicable to this product.

NCBI GI #	32189398
NCBI GeneID	2694
NCBI Accession #	NP_005133.2
UniProt Primary Accession #	P27352
UniProt Secondary Accession #	B2RAN8; B4DVZ1
UniProt Related Accession #	P27352
GenBank Nucleotide #	NM_005142.2
NCBI Official Full Name	gastric intrinsic factor
NCBI Official Synonym Full Names	gastric intrinsic factor (vitamin B synthesis)
NCBI Official Symbol	GIF
NCBI Official Synonym Symbols	IF; INF; IFMH; TCN3
UniProt Protein Name	Gastric intrinsic factor
UniProt Synonym Protein Names	Intrinsic factor; IF; INF
Protein Family	Gastric intrinsic factor
UniProt Gene Name	GIF
UniProt Synonym Gene Names	IFMH; IF; INF
UniProt Entry Name	IF_HUMAN
NCBI Protein Information	gastric intrinsic factor
NCBI Summary for GIF	This gene is a member of the cobalamin transport protein family. It encodes a glycoprotein secreted by parietal cells of the gastric mucosa and is required for adequate absorption of vitamin B12. Vitamin B12 is necessary for erythrocyte maturation and mutations in this gene may lead to congenital pernicious anemia. [provided by RefSeq, Jul 2008]
UniProt Comments for GIF	GIF: Promotes absorption of the essential vitamin cobalamin (Cbl) in the ileum. After interaction with CUBN, the GIF-cobalamin complex is internalized via receptor-mediated endocytosis. Defects in GIF are the cause of hereditary intrinsic factor deficiency (IFD); also known as congenital pernicious anemia. IFD is an autosomal recessive disorder characterized by megaloblastic anemia. Belongs to the eukaryotic cobalamin transport proteins family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted, signal peptide; Secreted Chromosomal Location of Human Ortholog: 11q13 Cellular Component: extracellular space; lysosomal lumen; microvillus; apical plasma membrane; extracellular region; endosome Molecular Function: cobalamin binding Biological Process: vitamin metabolic process; cobalamin metabolic process; cobalamin transport; cobalt ion transport; water-soluble vitamin metabolic process Disease: Intrinsic Factor Deficiency
Research Articles on GIF	**1.** study reports that FUT2 secretor variant influences GIF secretion in B12 deficient cases bearing GIF heterozygous mutations, in absence of H. pylori related gastritis

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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