KCNJ14 siRNA – ATP-Sensitive Inward Rectifier Potassium Channel 14 (Human)

PRODUCT OVERVIEW

Product Name	KCNJ14, siRNA
Full Product Name	KCNJ14 siRNA (Human)
Product Gene Name	KCNJ14 sirna
Product Synonym Names	IRK4; ATP-sensitive inward rectifier potassium channel 14; Inward rectifier K(+) channel Kir2.4; IRK-4; Potassium channel. inwardly rectifying subfamily J member 14
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	KCNJ14 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	47,846 Da
OMIM	603953
3D Structure	ModBase 3D Structure for Q9UNX9
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 KCNJ14 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 KCNJ14 sirna	RNA Interference (RNAi)
Related Product Information for KCNJ14 sirna	MBS8207867 is an siRNA targeting KCNJ14. Also known as KCNJ14 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit KCNJ14 expression using RNA interference
Other Notes	Small volumes of KCNJ14 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 KCNJ14. It may not necessarily be applicable to this product.

NCBI GI #	7019439
NCBI GeneID	3770
NCBI Accession #	NP_037480.1
UniProt Primary Accession #	Q9UNX9
UniProt Related Accession #	Q9UNX9
GenBank Nucleotide #	NM_013348.3
NCBI Official Full Name	ATP-sensitive inward rectifier potassium channel 14
NCBI Official Synonym Full Names	potassium channel, inwardly rectifying subfamily J, member 14
NCBI Official Symbol	KCNJ14
NCBI Official Synonym Symbols	IRK4; KIR2.4
UniProt Protein Name	ATP-sensitive inward rectifier potassium channel 14
UniProt Synonym Protein Names	Inward rectifier K(+) channel Kir2.4; IRK-4; Potassium channel, inwardly rectifying subfamily J member 14
Protein Family	ATP-sensitive inward rectifier potassium channel
UniProt Gene Name	KCNJ14
UniProt Synonym Gene Names	IRK4; IRK-4
UniProt Entry Name	KCJ14_HUMAN
NCBI Protein Information	ATP-sensitive inward rectifier potassium channel 14
NCBI Summary for KCNJ14	Potassium channels are present in most mammalian cells, where they participate in a wide range of physiologic responses. The protein encoded by this gene is an integral membrane protein and inward-rectifier type potassium channel, and probably has a role in controlling the excitability of motor neurons. [provided by RefSeq, Feb 2013]
UniProt Comments for KCNJ14	KCNJ14: Inward rectifier potassium channels are characterized by a greater tendency to allow potassium to flow into the cell rather than out of it. Their voltage dependence is regulated by the concentration of extracellular potassium; as external potassium is raised, the voltage range of the channel opening shifts to more positive voltages. The inward rectification is mainly due to the blockage of outward current by internal magnesium. KCNJ14 gives rise to low-conductance channels with a low affinity to the channel blockers Barium and Cesium. Belongs to the inward rectifier-type potassium channel (TC 1.A.2.1) family. KCNJ14 subfamily. Protein type: Membrane protein, integral; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 19q13 Cellular Component: voltage-gated potassium channel complex; cell soma; dendrite; plasma membrane Molecular Function: inward rectifier potassium channel activity Biological Process: synaptic transmission; potassium ion import
Research Articles on KCNJ14	**1.** Observational study of gene-disease association. (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.

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