RASA1 siRNA – Ras Gtpase-Activating Protein 1 (Rat)

PRODUCT OVERVIEW

Product Name	RASA1, siRNA
Full Product Name	RASA1 siRNA (Rat)
Product Gene Name	RASA1 sirna
Product Synonym Names	RASA; Ras GTPase-activating protein 1; GAP; GTPase-activating protein; RasGAP; Ras p21 protein activator; p120GAP
Host	Synthetic
Species Reactivity	Rat
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	RASA1 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	115,440 Da
3D Structure	ModBase 3D Structure for P50904
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 RASA1 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 RASA1 sirna	RNA Interference (RNAi)
Related Product Information for RASA1 sirna	MBS8220235 is an siRNA targeting RASA1. Also known as RASA1 siRNA (Rat). Reactive in Rat. Host: Synthetic. siRNA to inhibit RASA1 expression using RNA interference
Other Notes	Small volumes of RASA1 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 RASA1. It may not necessarily be applicable to this product.

NCBI GI #	6981460

NCBI GeneID	25676
NCBI Accession #	NP_037267.1
UniProt Primary Accession #	P50904
UniProt Related Accession #	P50904
GenBank Nucleotide #	NM_013135.1
NCBI Official Full Name	ras GTPase-activating protein 1
NCBI Official Synonym Full Names	RAS p21 protein activator (GTPase activating protein) 1
NCBI Official Symbol	Rasa1
NCBI Official Synonym Symbols	GAPX; Rasa
UniProt Protein Name	Ras GTPase-activating protein 1
UniProt Synonym Protein Names	Ras p21 protein activator; p120GAP
Protein Family	Ras GTPase-activating protein
UniProt Gene Name	Rasa1
UniProt Synonym Gene Names	Rasa; GAP; GTPase-activating protein; RasGAP
UniProt Entry Name	RASA1_RAT
NCBI Protein Information	ras GTPase-activating protein 1
NCBI Summary for RASA1	may play a role in Ras GTPase mediated signal transduction; may be involved in cell proliferation and cell migration [RGD, Feb 2006]
UniProt Comments for RASA1	RASA1: a GTPase activator for normal RAS p21 but not its oncogenic counterpart, converting it to the putatively inactive GDP-bound state. Acting as a suppressor of RAS function, it enhances the weak intrinsic GTPase activity of RAS proteins resulting in the inactive GDP-bound form of RAS, thereby allowing control of cellular proliferation and differentiation. Mutations leading to changes in the binding sites of either protein are associated with basal cell carcinomas. Two alternatively spliced isoforms have been described. Protein type: Motility/polarity/chemotaxis; Oncoprotein; GAPs; GAPs, Ras Cellular Component: ruffle; cytoplasm; plasma membrane; intracellular Molecular Function: protein binding; GTPase binding; glycoprotein binding; GTPase activator activity; receptor binding Biological Process: regulation of actin filament polymerization; cytokinesis after mitosis; negative regulation of Ras protein signal transduction; blood vessel morphogenesis; negative regulation of neuron apoptosis; negative regulation of cell adhesion; cell adhesion; vasculogenesis; actin cytoskeleton organization and biogenesis; signal transduction; negative regulation of cell-matrix adhesion; positive regulation of GTPase activity
Research Articles on RASA1	**1.** miR-335 can be involved in the epididymal development by affecting the expression of RASA1.
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