PPP2R1A siRNA – Serine/Threonine-Protein Phosphatase 2a 65 Kda Regulatory Subunit A Alpha Isoform (Mouse)

PRODUCT OVERVIEW

Product Name	PPP2R1A, siRNA
Full Product Name	PPP2R1A siRNA (Mouse)
Product Gene Name	PPP2R1A sirna
Product Synonym Names	Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform; PP2A subunit A isoform PR65-alpha; PP2A subunit A isoform R1-alpha
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	PPP2R1A siRNA (Mouse) 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	65,323 Da
3D Structure	ModBase 3D Structure for Q76MZ3
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 mouse PPP2R1A 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 PPP2R1A sirna	RNA Interference (RNAi)
Related Product Information for PPP2R1A sirna	MBS827520 is an siRNA targeting PPP2R1A. Also known as PPP2R1A siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit PPP2R1A expression using RNA interference
Other Notes	Small volumes of PPP2R1A 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 PPP2R1A. It may not necessarily be applicable to this product.

NCBI GI #	8394027
NCBI GeneID	51792
NCBI Accession #	NP_058587.1
UniProt Primary Accession #	Q76MZ3
UniProt Related Accession #	Q76MZ3
GenBank Nucleotide #	NM_016891.3
NCBI Official Full Name	serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform
NCBI Official Synonym Full Names	protein phosphatase 2, regulatory subunit A, alpha
NCBI Official Symbol	Ppp2r1a
NCBI Official Synonym Symbols	PP2A; PR65; 6330556D22Rik
UniProt Protein Name	Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform
UniProt Synonym Protein Names	PP2A subunit A isoform PR65-alpha; PP2A subunit A isoform R1-alpha
UniProt Gene Name	Ppp2r1a
UniProt Entry Name	2AAA_MOUSE
NCBI Protein Information	serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform
UniProt Comments for PPP2R1A	PPP2R1A: The PR65 subunit of protein phosphatase 2A serves as a scaffolding molecule to coordinate the assembly of the catalytic subunit and a variable regulatory B subunit. Required for proper chromosome segregation and for centromeric localization of SGOL1 in mitosis. Found in a complex with at least ARL2, PPP2CB, PPP2R1A, PPP2R2A, PPP2R5E and TBCD. PP2A consists of a common heterodimeric core enzyme, composed of PPP2CA a 36 kDa catalytic subunit (subunit C) and PPP2R1A a 65 kDa constant regulatory subunit (PR65 or subunit A), that associates with a variety of regulatory subunits. Proteins that associate with the core dimer include three families of regulatory subunits B (the R2/B/PR55/B55, R3/B''/PR72/PR130/PR59 and R5/B'/B56 families), the 48 kDa variable regulatory subunit, viral proteins, and cell signaling molecules. Interacts with IPO9. Interacts with TP53 and SGOL1. Interacts with PLA2G16; this interaction might decrease PP2A activity. Belongs to the phosphatase 2A regulatory subunit A family. Protein type: Motility/polarity/chemotaxis; Protein phosphatase, regulatory subunit Cellular Component: protein phosphatase type 2A complex; cytoplasm; chromosome; cytosol; chromosome, pericentric region Molecular Function: protein binding; protein heterodimerization activity; protein serine/threonine phosphatase activity; antigen binding Biological Process: meiotic sister chromatid cohesion, centromeric; female meiosis; meiotic spindle elongation; mitotic sister chromatid separation; chromosome segregation
Research Articles on PPP2R1A	**1.** oocyte-specific deletion of Ppp2r1a led to severe female subfertility without affecting follicle survival, growth, and ovulation.
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