

PHACTR2 siRNA (h): sc-95290

BACKGROUND

Phosphatase and actin regulator (PHACTR) family of proteins play a key role in inhibiting the activity of a multifunctional enzyme, protein phosphatase 1 (PP1). PP1 promotes synaptic activity and dendritic morphology in the nervous system. It is suggested that members of the PHACTR family members may be involved in regulation of cytoskeletal dynamics due to their interaction with cytoplasmic β -Actin and soluble globular Actin (G-Actin). PHACTR2 (phosphatase and Actin regulator 4), also known as C6orf56 or KIAA0680, is a 634 amino acid protein that contains four RPEL motifs and multiple phosphorylation sites. Three isoforms exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PHACTR2 (human) mapping to 6q24.2.

PRODUCT

PHACTR2 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PHACTR2 shRNA Plasmid (h): sc-95290-SH and PHACTR2 shRNA (h) Lentiviral Particles: sc-95290-V as alternate gene silencing products.

For independent verification of PHACTR2 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-95290A, sc-95290B and sc-95290C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PHACTR2 siRNA (h) is recommended for the inhibition of PHACTR2 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PHACTR2 gene expression knockdown using RT-PCR Primer: PHACTR2 (h)-PR: sc-95290-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.