

PAC2 siRNA (h): sc-76033

BACKGROUND

The 20S Proteasome core is hollow and forms an enclosed cavity, where proteins are degraded, as well as openings at the two ends to allow the target protein to enter. The 20S Proteasome core particle contains many subunits, depending on the organism. PAC2 (proteasome assembly chaperone 2), also designated tumor necrosis factor superfamily member 5-induced protein 1 or hepatocellular carcinoma-susceptibility protein 3, is a 264 amino acid nuclear chaperone protein that promotes assembly of the 20S Proteasome through interaction with PAC1. This heterodimer then cooperates with Proteasome 20S α 5 and Proteasome 20S α 7 to form a heteroheptameric α ring. PAC2 is overexpressed in human hepatocellular carcinoma and its upregulation is closely related to tumor invasiveness and metastasis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PSMG2 (human) mapping to 18p11.21.

PRODUCT

PAC2 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 PAC2 shRNA Plasmid (h): sc-76033-SH and PAC2 shRNA (h) Lentiviral Particles: sc-76033-V as alternate gene silencing products.

For independent verification of PAC2 (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-76033A, sc-76033B and sc-76033C.

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

PAC2 siRNA (h) is recommended for the inhibition of PAC2 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 PAC2 gene expression knockdown using RT-PCR Primer: PAC2 (h)-PR: sc-76033-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.