

SAPS1 siRNA (m): sc-106531

BACKGROUND

SAPS1 (SAPS domain family, member 1), also known as PP6R1 or SAP190, is a 943 amino acid protein that localizes to the cytoplasm and exists as multiple alternatively spliced isoforms. Expressed ubiquitously with notably higher expression in testis, SAPS1 functions as a regulatory subunit of the heterotrimeric protein phosphatase 6 (PP6) complex and is thought to play a role in protein scaffolding related to the PP6 complex. The gene encoding SAPS1 maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (Fc Rs). Key genes for eye color and hair color also map to chromosome 19.

REFERENCES

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3. LaPoint, S.F., et al. 2000. Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL). *Adv. Anat. Pathol.* 7: 307-321.
4. Trettel, F., et al. 2000. A fine physical map of the CACNA1A gene region on 19p13.1-p13.2 chromosome. *Gene* 241: 45-50.
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7. Stefansson, B., et al. 2008. Protein phosphatase 6 regulatory subunits composed of ankyrin repeat domains. *Biochemistry* 47: 1442-1451.

CHROMOSOMAL LOCATION

Genetic locus: Ppp6r1 (mouse) mapping to 7 A1.

PRODUCT

SAPS1 siRNA (m) 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 SAPS1 shRNA Plasmid (m): sc-106531-SH and SAPS1 shRNA (m) Lentiviral Particles: sc-106531-V as alternate gene silencing products.

For independent verification of SAPS1 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-106531A, sc-106531B and sc-106531C.

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

SAPS1 siRNA (m) is recommended for the inhibition of SAPS1 expression in mouse 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 SAPS1 gene expression knockdown using RT-PCR Primer: SAPS1 (m)-PR: sc-106531-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

SELECT PRODUCT CITATIONS

1. Fischietti, M., et al. 2018. Sifn2 regulates type I interferon responses by modulating the NF κ B pathway. *Mol. Cell. Biol.* 38: e00053-18.

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.