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# SOBP siRNA (m): sc-153679

## BACKGROUND

SOBP (sine oculis-binding protein homolog), also known as JXC1 (jackson circler protein 1), is an 873 amino acid protein that contains two FCS-type zinc fingers, belongs to the SOBP family and is implicated in development of the cochlea. The gene that encodes SOBP consists of approximately 171,352 bases and maps to human chromosome 6q21. Defects in SOBP are the cause of mental retardation-anterior maxillary protrusion-strabismus (MRAMS), a syndrome characterized by severe mental retardation, strabismus and dysmorphic features such as anterior maxillary protrusion with vertical maxillary excess, open bite and prominent crowded teeth. Some patients may lack dysmorphic features and manifest temporal lobe epilepsy and psychosis. Esotropia and amblyopia are also present in some individuals with MRAMS.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: Sobp (mouse) mapping to 10 B2.

## PRODUCT

SOBP 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SOBP shRNA Plasmid (m): sc-153679-SH and SOBP shRNA (m) Lentiviral Particles: sc-153679-V as alternate gene silencing products.

For independent verification of SOBP (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-153679A, sc-153679B and sc-153679C.

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

## APPLICATIONS

SOBP siRNA (m) is recommended for the inhibition of SOBP 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  $\mu$ M in 66  $\mu$ 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 SOBP gene expression knockdown using RT-PCR Primer: SOBP (m)-PR: sc-153679-PR (20  $\mu$ 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.