

## FSCB siRNA (h): sc-92230

### BACKGROUND

FSCB (fibrous sheath CABYR-binding protein), also known as C14orf155, is an 825 amino acid protein kinase A-phosphorylated calcium-binding protein. Localizing to cell projection, FSCB is expressed in elongating spermatids during spermatogenesis and is later found in the cortical layer of flagellum. FSCB interacts with CABYR and may be involved in late stage fibrous sheath biogenesis. The gene encoding FSCB maps to human chromosome 14q21.2. Chromosome 14 contains about 700 genes and 106 million base pairs, and makes up about 3.5% of human cellular DNA. The presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease, is located on chromosome 14. The SERPINA1 gene is located on chromosome 14 and, when defective, leads to the genetic disorder  $\alpha$ 1-antitrypsin deficiency.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: FSCB (human) mapping to 14q21.2.

### PRODUCT

FSCB 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  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see FSCB shRNA Plasmid (h): sc-92230-SH and FSCB shRNA (h) Lentiviral Particles: sc-92230-V as alternate gene silencing products.

For independent verification of FSCB (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-92230A, sc-92230B and sc-92230C.

### 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

FSCB siRNA (h) is recommended for the inhibition of FSCB 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  $\mu$ 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 FSCB gene expression knockdown using RT-PCR Primer: FSCB (h)-PR: sc-92230-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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.