



FIBCD1 siRNA (m): sc-145172

BACKGROUND

FIBCD1 (fibrinogen C domain containing 1) is a 461 amino acid single-pass membrane protein that contains one fibrinogen C-terminal domain and exists as multiple alternatively spliced isoforms. The gene encoding FIBCD1 maps to human chromosome 9, which contains 145 million base pairs, comprises 4% of the human genome and encodes nearly 900 genes. Hereditary hemorrhagic telangiectasia and Familial dysautonomia are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster. Chromosome 9 is partnered with chromosome 22 in translocations that lead to the aberrant production of a Bcr-Abl fusion protein often found in leukemias.

REFERENCES

1. Humphray, S.J., et al. 2004. DNA sequence and analysis of human chromosome 9. *Nature* 429: 369-374.
2. Coppo, P., et al. 2006. Bcr-Abl activates Stat3 via JAK and MEK pathways in human cells. *Br. J. Haematol.* 134: 171-179.
3. Zheng, X., et al. 2006. BCR and its mutants, the reciprocal t(9;22)-associated Abl/Bcr fusion proteins, differentially regulate the cytoskeleton and cell motility. *BMC Cancer* 7: 262.
4. Burmeister, T., et al. 2007. Atypical BCR-ABL mRNA transcripts in adult acute lymphoblastic leukemia. *Haematologica* 92: 1699-1702.
5. Cottin, V., et al. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (Rendu-Osler disease). *Respiration* 74: 361-378.
6. Fernandez, L.A., et al. 2007. Gene expression fingerprinting for human hereditary hemorrhagic telangiectasia. *Hum. Mol. Genet.* 16: 1515-1533.
7. Gardiner, J., et al. 2007. Potential role of tubulin acetylation and microtubule-based protein trafficking in Familial dysautonomia. *Traffic* 8: 1145-1149.
8. Hims, M.M., et al. 2007. A humanized IKBKAP transgenic mouse models a tissue-specific human splicing defect. *Genomics* 90: 389-396.
9. Temtamy, S.A., et al. 2007. Phenotypic and cytogenetic spectrum of 9p trisomy. *Genet. Couns.* 18: 29-48.

CHROMOSOMAL LOCATION

Genetic locus: Fibcd1 (mouse) mapping to 2 B.

PRODUCT

FIBCD1 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 FIBCD1 shRNA Plasmid (m): sc-145172-SH and FIBCD1 shRNA (m) Lentiviral Particles: sc-145172-V as alternate gene silencing products.

For independent verification of FIBCD1 (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-145172A, sc-145172B and sc-145172C.

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

FIBCD1 siRNA (m) is recommended for the inhibition of FIBCD1 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 FIBCD1 gene expression knockdown using RT-PCR Primer: FIBCD1 (m)-PR: sc-145172-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.