

CRF-1 siRNA (m): sc-40373

BACKGROUND

C1q is part of the C1 enzyme complex, which activates the serum complement system. The residues of the globular domain in C1q share homology with several other secreted and membrane-bound collagen or collagen-like proteins, including pre-cerebellin and collagen types VIII and X, as well as the human and mouse genes encoding Apm1/BPB80 and AdipoQ/ACRP30, respectively. These various C1q-related proteins are found in adipose serum, corneal endothelium chondrocytes and cerebral Purkinje cells. C1q-related factor (CRF-1) is a polypeptide with a hydrophobic signal sequence, a collagenous region, and a globular domain at the carboxy terminus, which shares homology to the C1q globular domain. CRF-1 transcripts are most abundant in areas of the nervous system that are associated with motor function, including cerebral Purkinje cells, the pons, the accessory olivary nucleus, and the red nucleus. The similarity of mouse CRF-1 to human CRF-1 suggests a conserved and important role for the protein. In humans, the gene encoding CRF-1 maps to chromosome 17q21.31.

REFERENCES

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2. Seller, G.C., Blake, D.J. and Reid, K.B.M. 1991. Characterization and organization of the genes encoding the A-, B-, and C-chains of human complement subcomponent C1q. Biochem. J. 274: 481-490.
3. Brass, A., Kadler, K.E., Thomas, T., Grant, M.E. and Boot-Handford, R.P. 1992. The fibrillar collagen, collagen VIII, collagen X and the C1q complement proteins share a similar domain in their C-terminal non-collagenous regions. FEBS Lett. 303: 126-128.
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5. Berube, N.G., et al. 1999. Cloning and characterization of CRG, a novel C1q-related factor, expressed in areas of the brain involved in motor function. Mol. Brain Res. 63: 233-240.

CHROMOSOMAL LOCATION

Genetic locus: C1q1 (mouse) mapping to 11 E1.

PRODUCT

C1qL1 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 C1qL1 shRNA Plasmid (m): sc-40373-SH and C1qL1 shRNA (m) Lentiviral Particles: sc-40373-V as alternate gene silencing products.

For independent verification of C1qL1 (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-40373A, sc-40373B and sc-40373C.

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

C1qL1 siRNA (m) is recommended for the inhibition of C1qL1 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 C1qL1 gene expression knockdown using RT-PCR Primer: C1qL1 (m)-PR: sc-40373-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.