SANTA CRUZ BIOTECHNOLOGY, INC.

CD92 siRNA (m): sc-62087

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The Power to Question

BACKGROUND

CD92, also known as SLC44A1 (solute carrier family 44, member 1), CDw92 or CTL1 (choline transporter-like protein 1), is a 657 amino acid multi-pass membrane protein that belongs to the choline transporter-like family of solute carrier proteins. Expressed in cells that are associated with the hematopoietic system, CD92 functions as a choline transporter that may be involved in myelin production, as well as in membrane synthesis. Human CD92 shares 96% sequence homology with its mouse counterpart, suggesting a conserved role between species. Three isoforms of CD92 exist due to alternative splicing events. The gene encoding CD92 maps to human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and Familial dysautonomia, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

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3. Traiffort, E., et al. 2005. Molecular characterization of the family of choline transporter-like proteins and their splice variants. J. Neurochem. 92: 1116-1125.
4. Lecomte, M.J., et al. 2005. Differential expression and regulation of the high-affinity choline transporter CHT1 and choline acetyltransferase in neurons of superior cervical ganglia. Mol. Cell. Neurosci. 28: 303-313.
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6. Fullerton, M.D., et al. 2006. Impaired trafficking of choline transporter-like protein-1 at plasma membrane and inhibition of choline transport in THP-1 monocyte-derived macrophages. Am. J. Physiol., Cell Physiol. 290: C1230-C1238.

CHROMOSOMAL LOCATION

Genetic locus: Slc44a1 (mouse) mapping to 4 B2.

PRODUCT

CD92 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CD92 shRNA Plasmid (m): sc-62087-SH and CD92 shRNA (m) Lentiviral Particles: sc-62087-V as alternate gene silencing products.

For independent verification of CD92 (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-62087A, sc-62087B and sc-62087C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

CD92 siRNA (m) is recommended for the inhibition of CD92 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 µM in 66 µl. 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 CD92 gene expression knockdown using RT-PCR Primer: CD92 (m)-PR: sc-62087-PR (20 µl). 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.