SANTA CRUZ BIOTECHNOLOGY, INC.

FLVCR2 siRNA (m): sc-145202

BACKGROUND

FLVCR2 (feline leukemia virus subgroup C cellular receptor family, member 2), also known as CCT, EPV, PVHH, MFSD7C or FLVCRL14q, is a 526 amino acid multi-pass membrane protein that is expressed in brain, placenta, lung, liver, kidney, fetal liver, spleen, lymph node, thymus, leukocytes and bone marrow. Belonging to the major facilitator superfamily and the feline leukemia virus subgroup C receptor family, FLVCR2 acts as a heme importer and a transporter for a calcium-chelator complex, which is important for growth and calcium metabolism. Mutations in the gene encoding FLVCR2 leads to proliferative vasculopathy and hydranencephaly-hydrocephaly syndrome (PVHH), a rare prenatally lethal disorder characterized by hydranencephaly. A rare condition, Hydranencephaly is a type of cephalic disorder in which the brain's cerebral hemispheres are absent and replaced by sacs filled with cerebrospinal fluid.

REFERENCES

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PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: Mfsd7c (mouse) mapping to 12 D2.

PRODUCT

FLVCR2 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 FLVCR2 shRNA Plasmid (m): sc-145202-SH and FLVCR2 shRNA (m) Lentiviral Particles: sc-145202-V as alternate gene silencing products.

For independent verification of FLVCR2 (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-145202A, sc-145202B and sc-145202C.

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

FLVCR2 siRNA (m) is recommended for the inhibition of FLVCR2 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 FLVCR2 gene expression knockdown using RT-PCR Primer: FLVCR2 (m)-PR: sc-145202-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.