SANTA CRUZ BIOTECHNOLOGY, INC.

Fer1l4 siRNA (m): sc-145158

BACKGROUND

Fer1l4 (fer-1-like 4) is a 1,992 amino acid single-pass membrane protein that contains five C2 domains, which is a structural motif involved in targeting proteins to the cell membrane. The C2 domain is composed of about 116 amino acids and is suggested to participate in calcium-dependent phospholipid binding and in membrane targeting processes. Fer1l4 exists as two alternatively spliced isoforms and is encoded by a gene located on mouse chromosome 2 H1.

REFERENCES

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2. Sutton, R.B., Davletov, B.A., Berghuis, A.M., Südhof, T.C. and Sprang, S.R. 1995. Structure of the first C2 domain of synaptotagmin I: a novel Ca^{2+}/phospholipid-binding fold. Cell 80: 929-938.
3. Brose, N., Hofmann, K., Hata, Y. and Südhof, T.C. 1995. Mammalian homologues of *Caenorhabditis elegans* unc-13 gene define novel family of C2-domain proteins. J. Biol. Chem. 270: 25273-25280.
4. Carninci, P., et. al. 2005. The transcriptional landscape of the mammalian genome. Science 309: 1559-1563.
5. Church, D.M., Goodstadt, L., Hillier, L.W., Zody, M.C., Goldstein, S., She, X., Bult, C.J., Agarwala, R., Cherry, J.L., DiCuccio, M., Hlavina, W., Kapustin, Y., Meric, P., Maglott, D., Birtle, Z., Marques, A.C., Graves, T., Zhou, S., et al. 2009. Lineage-specific biology revealed by a finished genome assembly of the mouse. PLoS Biol. 7: e1000112.

CHROMOSOMAL LOCATION

Genetic locus: Fer1l4 (mouse) mapping to 2 H1.

PRODUCT

Fer1l4 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 Fer1l4 shRNA Plasmid (m): sc-145158-SH and Fer1l4 shRNA (m) Lentiviral Particles: sc-145158-V as alternate gene silencing products.

For independent verification of Fer1l4 (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-145158A, sc-145158B and sc-145158C.

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.

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

Fer1l4 siRNA (m) is recommended for the inhibition of Fer1l4 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 Fer1l4 gene expression knockdown using RT-PCR Primer: Fer1l4 (m)-PR: sc-145158-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.