SANTA CRUZ BIOTECHNOLOGY, INC.

2310044H10Rik siRNA (m): sc-108702

BACKGROUND

2310044H10Rik is a 258 amino acid single-pass type I membrane protein that is mouse-specific and is expressed as two alternatively spliced isoforms. The gene encoding 2310044H10Rik maps to mouse chromosome 7 B4, which houses over 1,800 genes and is the third largest murine chromosome. Containing genes that encode liver enzymes, selenoproteins and olfactory receptors (Olfrs), chromosome 7 is associated with the regulation of body composition, as well as with the pathogenesis of mytonic dystrophy, motor neuron degeneration and the appearance of the albino phenotype.

REFERENCES

1. Saunders, A.M. and Seldin, M.F. 1990. A molecular genetic linkage map of mouse chromosome 7. Genomics 8: 525-535.
2. Giometti, C.S., et al. 1992. Evidence for regulatory genes on mouse chromosome 7 that affect the quantitative expression of proteins in the fetal and newborn liver. Proc. Natl. Acad. Sci. USA 89: 2448-2452.
3. Katayama, S., et al. 2005. Antisense transcription in the mammalian transcriptome. Science 309: 1564-1566.
4. Gopinath, S., et al. 2007. A novel locus for distal motor neuron degeneration maps to chromosome 7q34-q36. Hum. Genet. 121: 559-564.
5. Hoffman, B.G., et al. 2008. Identification of transcripts with enriched expression in the developing and adult pancreas. Genome Biol. 9: R99.
6. Reed, D.R., et al. 2008. QTL for body composition on chromosome 7 detected using a chromosome substitution mouse strain. Obesity 16: 483-487.

CHROMOSOMAL LOCATION

Genetic locus: Emc10 (mouse) mapping to 7 B4.

PRODUCT

2310044H10Rik siRNA (m) is a pool of 2 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 2310044H10Rik shRNA Plasmid (m): sc-108702-SH and 2310044H10Rik shRNA (m) Lentiviral Particles: sc-108702-V as alternate gene silencing products.

For independent verification of 2310044H10Rik (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-108702A and sc-108702B.

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.

APPLICATOINS

2310044H10Rik siRNA (m) is recommended for the inhibition of 2310044H10Rik 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 2310044H10Rik gene expression knockdown using RT-PCR Primer: 2310044H10Rik (m)-PR: sc-108702-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.