SANTA CRUZ BIOTECHNOLOGY, INC.

Gm318 siRNA (m): sc-145534

BACKGROUND

Gm318, also known as Gm858, is a 495 amino acid protein that may function as a serine/threonine kinase. The gene encoding Gm318 is located on mouse chromosome 17, which also contains the major histocompatibility complex (MHC). MHC is known to have an important role in the immune system and autoimmunity. The interval on mouse chromosome 17, which houses the Gm318 gene, contains several orthologous genes potentially associated with human alopecia areata, an autoimmune disease that targets actively growing (anagen) hair follicles in humans, mice, rats, dogs, horses and cattle. The t complex is a series of inversions in the proximal region of mouse chromosome 17; it contains a set of genes that determine its predominant transmission to the offspring of heterozygous males. Mouse t haplotypes exists at high frequencies in worldwide populations of several species of house mouse.

REFERENCES

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3. Kasahara, M., et al. 1987. Random cloning of genes from mouse chromosome 17. Proc. Natl. Acad. Sci. USA 84: 3325-3328.
4. Hammer, M.F., et al. 1989. Evolution of mouse chromosome 17 and the origin of inversions associated with t haplotypes. Proc. Natl. Acad. Sci. USA 86: 3261-3265.
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CHROMOSOMAL LOCATION

Genetic locus: Gm318 (mouse) mapping to 17 B1.

PRODUCT

Gm318 siRNA (m) is a target-specific 19-25 nt siRNA 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 Gm318 shRNA Plasmid (m): sc-145534-SH and Gm318 shRNA (m) Lentiviral Particles: sc-145534-V as alternate gene silencing products.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

Gm318 siRNA (m) is recommended for the inhibition of Gm318 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 Gm318 gene expression knockdown using RT-PCR Primer: Gm318 (m)-PR: sc-145534-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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