SANTA CRUZ BIOTECHNOLOGY, INC.

VSTM3 siRNA (m): sc-144822

BACKGROUND

VSTM3 (V-set and transmembrane domain-containing protein 3), also known as TIGIT (T cell immunoreceptor with Ig and ITIM domains) or VSIG9, is a 244 amino acid single-pass type I membrane protein that contains one Ig-like V-type domain and exists as multiple alternatively spliced isoforms. Expressed at low levels in NK cells and in peripheral memory and regulatory $CD4^+$ T cells, VSTM3 binds with high affinity to CD155 and, via this binding, causes an increase in the secretion of IL-10 and suppresses T cell activation by promoting the creation of mature dendritic cells. The gene encoding VSTM3 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Tigit (mouse) mapping to 16 B4.

PRODUCT

VSTM3 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 VSTM3 shRNA Plasmid (m): sc-144822-SH and VSTM3 shRNA (m) Lentiviral Particles: sc-144822-V as alternate gene silencing products.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog 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

VSTM3 siRNA (m) is recommended for the inhibition of VSTM3 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 VSTM3 gene expression knockdown using RT-PCR Primer: VSTM3 (m)-PR: sc-144822-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.