SANTA CRUZ BIOTECHNOLOGY, INC.

ADAMDEC1 siRNA (h): sc-77568

BACKGROUND

ADAMDEC1 (ADAM-like, decysin 1), also known as decysin, is a 470 amino acid secreted protein that belongs to the disintegrin metalloproteinase family. Expressed primarily in dendritic cells (DCs) of the small intestine, spleen and lymph nodes, ADAMDEC1 can bind one zinc ion per subunit and is thought to be involved in controlling the immune response. ADAMDEC1 expression is induced in maturing DC cells in response to T cell signals and its expression is upegulated during differentiation of primary monocytes into macrophages. ADAMDEC1 contains one peptidase M12B domain, a prematurely terminated disintegrin domain and, unlike other ADAM family members, does not have an intracellular tail or a cysteine-rich domain.

REFERENCES

1. Mueller, C.G., et al. 1997. Polymerase chain reaction selects a novel disintegrin proteinase from CD40-activated germinal center dendritic cells. J. Exp. Med. 186: 655-663.
2. Bates, E.E., et al. 2002. The ADAMDEC1 (decysin) gene structure: evolution by duplication in a metalloprotease gene cluster on chromosome 8p12. Immunogenetics 54: 96-105.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606393. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Fritsche, J., et al. 2003. Inverse regulation of the ADAM-family members, decysin and MADDAM/ADAM19 during monocyte differentiation. Immunology 110: 450-457.
5. Papaspyridonos, M., et al. 2006. Novel candidate genes in unstable areas of human atherosclerotic plaques. Arterioscler. Thromb. Vasc. Biol. 26: 1837-1844.
6. Kim, E., et al. 2007. Genomic organization of the region spanning D14Mit262 and D14Mit86 on mouse chromosome 14 and exclusion of ADAM28 and ADAMDEC1 as the cataract-causing gene, Ir2. Cytogenet. Genome Res. 116: 12-17.

CHROMOSOMAL LOCATION

Genetic locus: ADAMDEC1 (human) mapping to 8p21.2.

PRODUCT

ADAMDEC1 siRNA (h) 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 ADAMDEC1 shRNA Plasmid (h): sc-77568-SH and ADAMDEC1 shRNA (h) Lentiviral Particles: sc-77568-V as alternate gene silencing products.

For independent verification of ADAMDEC1 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-77568A, sc-77568B and sc-77568C.

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

ADAMDEC1 siRNA (h) is recommended for the inhibition of ADAMDEC1 expression in human 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.

GENE EXPRESSION MONITORING

ADAMDEC1 (LL-17): sc-100478 is recommended as a control antibody for monitoring of ADAMDEC1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor ADAMDEC1 gene expression knockdown using RT-PCR Primer: ADAMDEC1 (h)-PR: sc-77568-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.