SANTA CRUZ BIOTECHNOLOGY, INC.

MBL-A siRNA (m): sc-106208

BACKGROUND

MBL-A, also known as Mbl1 (mannose-binding lectin (protein A) 1) or RaRF p28B, is a 239 amino acid mouse protein that is localized predominately to the Golgi apparatus and the rough endoplasmic reticulum and contains one collagen-like domain and one C-type lectin domain. Existing in an oligomeric complex composed of six homotrimers, MBL-A functions to bind N-acetylglucosamine and mannose in a Ca^{2+}-dependent manner and, via this interaction, is able to activate the classical complement pathway, thereby providing host defense against invasive pathogens. Due to its involvement in the innate immune system, MBL-A is involved in the pathogenesis of a variety of afflictions, including diabetes, acute septic peritonitis, asthma, cancer and bacterial and viral infections.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Mbl1 (mouse) mapping to 14 B.

PRODUCT

MBL-A 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 MBL-A shRNA Plasmid (m): sc-106208-SH and MBL-A shRNA (m) Lentiviral Particles: sc-106208-V as alternate gene silencing products.

For independent verification of MBL-A (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-106208A and sc-106208B.

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

MBL-A siRNA (m) is recommended for the inhibition of MBL-A 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 MBL-A gene expression knockdown using RT-PCR Primer: MBL-A (m)-PR: sc-106208-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.