SANTA CRUZ BIOTECHNOLOGY, INC.

A1BG siRNA (m): sc-140613

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The Power to Question

BACKGROUND

A1BG (α 1B-glycoprotein), also known as A1B, ABG, GAB or HYST2477, is a 495 amino acid secreted glycoprotein that contains five immunoglobulin (Ig)-like V-type domains and belongs to the immunoglobulin superfamily. At an average concentration of 22mg/dl, A1BG is expressed in normal adult plasma and is thought to be involved in the regulation of cell behavior and cell recognition. In plasma, A1BG specifically binds to human CRISP-3, a member of the cysteine-rich secretory protein (CRISP) family comprised of evolutionarily conserved proteins which are believed to play a role in the innate immune system. Through its association with CRISP-3, A1BG is believed to function in protecting the body from the circulation of free CRISP-3, a circumstance with potentially harmful effects.

REFERENCES

1. Ishioka, N., et al. 1986. Amino acid sequence of human plasma α 1B-glycoprotein: homology to the immunoglobulin supergene family. Proc. Natl. Acad. Sci. USA 83: 2363-2367.
2. Gahne, B., et al. 1987. Genetic polymorphism of human plasma α 1B-glycoprotein: phenotyping by immunoblotting or by a simple method of 2-D electrophoresis. Hum. Genet. 76: 111-115.
3. Juneja, R.K., et al. 1988. Further studies of the plasma α 1B-glycoprotein polymorphism: two new alleles and allele frequencies in Caucasians and in American blacks. Hum. Hered. 38: 267-272.
4. Eiberg, H., et al. 1989. Linkage between α 1B-glycoprotein (A1BG) and Lutheran (LU) red blood group system: assignment to chromosome 19: new genetic variants of A1BG. Clin. Genet. 36: 415-418.
5. Juneja, R.K., et al. 1994. Distribution of plasma α 1B-glycoprotein (A1BG) polymorphism in several populations of the Indian subcontinent. Ann. Hum. Biol. 21: 443-448.
6. Hashim, O.H., et al. 2001. The application of *Artocarpus* integer seed lectin-M in the detection and isolation of selective human serum acute-phase proteins and immunoglobulins. Immunol. Invest. 30: 131-141.

CHROMOSOMAL LOCATION

Genetic locus: A1bg (mouse) mapping to 15 D1.

PRODUCT

A1BG siRNA (m) 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 A1BG shRNA Plasmid (m): sc-140613-SH and A1BG shRNA (m) Lentiviral Particles: sc-140613-V as alternate gene silencing products.

For independent verification of A1BG (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-140613A, sc-140613B and sc-140613C.

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

A1BG siRNA (m) is recommended for the inhibition of A1BG 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 A1BG gene expression knockdown using RT-PCR Primer: A1BG (m)-PR: sc-140613-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.