SANTA CRUZ BIOTECHNOLOGY, INC.

A2LD1 siRNA (m): sc-141496

BACKGROUND

A2LD1 (AIG2-like domain 1), also known as gamma-glutamylaminecyclotransferase (GGACT), is a 153 amino acid protein belonging to the γ-glutamylcyclotransferase family. A2LD1 contains two exons, with only the second exon coding, and spans 2.2 kb. Consisting of a monomer subunit, A2LD1 participates in acyltransferase and γ-glutamylcyclotransferase activities. A2LD1 assists with the breakdown of proteins cross-linked by transglutaminases. A2LD1 also catalyzes the formation of 5-oxoproline from L-γ-glutamyl-L-ε-lysine, but is inactive with L-γ-glutamyl-α-amino acid substrates, such as L-γ-glutamyl-L-α-cysteine and L-γ-glutamyl-L-α-alanine. A2LD1 is encoded by a gene that maps to human chromosome 13q32.3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: a2ld1 (mouse) mapping to 14 E5.

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.

PRODUCT

A2LD1 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 A2LD1 shRNA Plasmid (m): sc-141496-SH and A2LD1 shRNA (m) Lentiviral Particles: sc-141496-V as alternate gene silencing products.

For independent verification of A2LD1 (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-141496A, sc-141496B and sc-141496C.

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

A2LD1 siRNA (m) is recommended for the inhibition of A2LD1 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 A2LD1 gene expression knockdown using RT-PCR Primer: A2LD1 (m)-PR: sc-141496-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.