SANTA CRUZ BIOTECHNOLOGY, INC.

OASL siRNA (h): sc-95857

BACKGROUND

OASL (2'-5'-oligoadenylate synthetase-like), also known as p59OASL or TRIP14 (thyroid receptor-interacting protein 14), is a 514 amino acid protein that exists as two alternatively spliced isoforms, designated p56 and p30, and contains two ubiquitin-like domains. Expressed in a variety of tissues with highest levels present in colon, stomach and testis, OASL interacts with the ligand binding domain of the thyroid receptor (TR) and is able to bind double-stranded RNA and DNA, possibly playing a role in RNA degradation and the overall inhibition of protein synthesis. The gene encoding OASL maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: OASL (human) mapping to 12q24.31.

PRODUCT

OASL 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 OASL shRNA Plasmid (h): sc-95857-SH and OASL shRNA (h) Lentiviral Particles: sc-95857-V as alternate gene silencing products.

For independent verification of OASL (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-95857A, sc-95857B and sc-95857C.

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

OASL siRNA (h) is recommended for the inhibition of OASL 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor OASL gene expression knockdown using RT-PCR Primer: OASL (h)-PR: sc-95857-PR (20 µl, 593 bp). 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.