SANTA CRUZ BIOTECHNOLOGY, INC.

G72 siRNA (h): sc-45663

BACKGROUND

D-amino acid oxidase (DAAO) metabolizes exogenous D-amino acids that accumulate during aging and modulates the level of D-serine in the brain, acting as a detoxifying agent. DAAO is specific for the D-configuration of amino acids and exhibits a preference for those with small, hydrophobic side chains and polar, aromatic and basic functional groups. D-amino acid oxidase activator (G72) associates with and activates DAAO. G72 is a 157 amino acid protein that localizes to the Golgi apparatus. The gene encoding for the protein, known as DAOA, maps to chromosome 13q33.2. G72 is expressed in amygdala, spinal cord and testis. The G72 protein, together with the associated protein DAAO, is often implicated in schizophrenia. An overexpression of the G72 protein can be detected in schizophrenic brain samples.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: DAOA (human) mapping to 13q33.2.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

G72 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 G72 shRNA Plasmid (h): sc-45663-SH and G72 shRNA (h) Lentiviral Particles: sc-45663-V as alternate gene silencing products.

For independent verification of G72 (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-45663A, sc-45663B and sc-45663C.

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

G72 siRNA (h) is recommended for the inhibition of G72 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 G72 gene expression knockdown using RT-PCR Primer: G72 (h)-PR: sc-45663-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.