SANTA CRUZ BIOTECHNOLOGY, INC.

GALP siRNA (h): sc-97912

BACKGROUND

The galanin family of proteins are key members for inflammatory processes and cell proliferation, and may function as potential biomarkers for colon cancer. Produced in both neuronal and nonneuronal cells in the skin, members of the galanin family include galanin, galanin-message associated peptide, galanin-like peptide and alarin. GALP, also known as galanin-like peptide, is a 116 amino acid secreted protein belonging to the galanin family. Mainly produced in the arcuate nucleus of the hypothalamus (ARC) and the posterior pituitary, GALP is thought to function in CNS homeostatic processes, including the regulation of gonadotropin-releasing hormone secretion. GALP binds to the G protein-coupled galanin receptors, including GALR1, GALR2 and GALR3, and may also play a role in energy metabolism, with significant implications towards obesity. GALP exits as two alternatively spliced isoforms.

REFERENCES

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4. Lawrence, C.B. and Fraley, G.S. 2010. Galanin-like peptide: neural regulator of energy homeostasis and reproduction. Exp. Suppl. 102: 263-280.
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7. Lawrence, C. and Fraley, G.S. 2011. Galanin-like peptide (GALP) is a hypothalamic regulator of energy homeostasis and reproduction. Front. Neuroendocrinol. 32: 1-9.
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CHROMOSOMAL LOCATION

Genetic locus: GALP (human) mapping to 19q13.43.

PRODUCT

GALP siRNA (h) 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 GALP shRNA Plasmid (h): sc-97912-SH and GALP shRNA (h) Lentiviral Particles: sc-97912-V as alternate gene silencing products.

For independent verification of GALP (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-97912A and sc-97912B.

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

GALP siRNA (h) is recommended for the inhibition of GALP 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 GALP gene expression knockdown using RT-PCR Primer: GALP (h)-PR: sc-97912-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.