SANTA CRUZ BIOTECHNOLOGY, INC.

GLIPR1L2 siRNA (h): sc-95979

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The GLIPR1 (glioma pathogenesis-related 1) family consists of three core members, designated GLIPR1, GLIPR1L1 and GLIPR1L2 (GLIPR1-like protein 2), which form a distinct subgroup within the cysteine-rich secretory protein (CRISP), antigen 5 and pathogenesis-related 1 (CAP) superfamily. Each member of the CAP superfamily has a conserved N-terminal CAP domain and a distinct C-terminal extension. CAP superfamily proteins are hypothesized to have roles in immunity, cell adhesion, carcinogenesis and male fertility. GLIPR1L2 is a 344 amino acid single-pass membrane protein. Up-regulated by doxycycline, GLIPR1L2 is expressed in prostate, kidney, bladder, lung and bone marrow, with highest expression in testis. GLIPR1L2 exists as six isoforms produced by alternative splicing events.

REFERENCES

1. Ren, C., et al. 2006. Identification and characterization of RTVP1/GLIPR1-like genes, a novel p53 target gene cluster. Genomics 88: 163-172.
2. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610394. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Chilukamarri, L., et al. 2007. Hypomethylation and aberrant expression of the glioma pathogenesis-related 1 gene in Wilms tumors. Neoplasia 9: 970-978.
4. Li, L., et al. 2008. Glioma pathogenesis-related protein 1 exerts tumor suppressor activities through proapoptotic reactive oxygen species-c-Jun-NH_2 kinase signaling. Cancer Res. 68: 434-443.
5. Gibbs, G.M., et al. 2008. The CAP superfamily: cysteine-rich secretory proteins, antigen 5, and pathogenesis-related 1 proteins—roles in reproduction, cancer, and immune defense. Endocr. Rev. 29: 865-897.
6. Bonura, A., et al. 2010. Cloning and expression of a novel component of the CAP superfamily enhanced in the inflammatory response to LPS of the ascidian *Ciona intestinalis*. Cell Tissue Res. 342: 411-421.
7. Gibbs, G.M., et al. 2010. Glioma pathogenesis-related 1-like 1 is testis enriched, dynamically modified, and redistributed during male germ cell maturation and has a potential role in sperm-oocyte binding. Endocrinology 151: 2331-2342.

CHROMOSOMAL LOCATION

Genetic locus: GLIPR1L2 (human) mapping to 12q21.2.

PRODUCT

GLIPR1L2 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 GLIPR1L2 shRNA Plasmid (h): sc-95979-SH and GLIPR1L2 shRNA (h) Lentiviral Particles: sc-95979-V as alternate gene silencing products.

For independent verification of GLIPR1L2 (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-95979A, sc-95979B and sc-95979C.

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

GLIPR1L2 siRNA (h) is recommended for the inhibition of GLIPR1L2 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.

GENE EXPRESSION MONITORING

GLIPR1L2 (B-12): sc-514645 is recommended as a control antibody for monitoring of GLIPR1L2 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor GLIPR1L2 gene expression knockdown using RT-PCR Primer: GLIPR1L2 (h)-PR: sc-95979-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.