SANTA CRUZ BIOTECHNOLOGY, INC.

GLIPR1L1 siRNA (m): sc-145423

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The Power to Question

BBACKGROUND

The GLIPR1 (glioma pathogenesis-related 1) family consists of three core members, designated GLIPR1, GLIPR1L1 (GLIPR1-like protein 1) and GLIPR1L2, 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. GLIPR1L1 is a 242 amino acid secreted protein. Highly expressed in testis, GLIPR1L1 exists as two isoforms produced by alternative splicing events. GLIPR1L1 is encoded by a gene that maps to human chromosome 12q21.1 and mouse chromosome 10 D2.

REFERENCES

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2. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610395. 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.
8. Tam, M., et al. 2010. Examining hedgehog pathway genes GLI3, SHH, and PTCH1 and the p53 target GLIPR1/GLIPR1L1/GLIPR1L2 gene cluster using fluorescence *in situ* hybridization uncovers GLIPR1/GLIPR1L1/GLIPR1L2 deletion in 9% of patients with multiple myeloma. J. Assoc. Genet. Technol. 36: 111-114.
9. Thompson, T.C. 2010. Glioma pathogenesis-related protein 1: tumor-suppressor activities and therapeutic potential. Yonsei Med. J. 51: 479-483.

CHROMOSOMAL LOCATION

Genetic locus: Glipr1l1 (mouse) mapping to 10 D2.

PROTOCOLS

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

PRODUCT

GLIPR1L1 siRNA (m) is a target-specific 19-25 nt siRNA 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 GLIPR1L1 shRNA Plasmid (m): sc-145423-SH and GLIPR1L1 shRNA (m) Lentiviral Particles: sc-145423-V as alternate gene silencing products.

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

GLIPR1L1 siRNA (m) is recommended for the inhibition of GLIPR1L1 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 GLIPR1L1 gene expression knockdown using RT-PCR Primer: GLIPR1L1 (m)-PR: sc-145423-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.