SANTA CRUZ BIOTECHNOLOGY, INC.

GLIPR1 siRNA (m): sc-145422

BACKGROUND

GLIPR1 (GLI pathogenesis-related 1), also known as GLIPR, RTVP1 or CRISP7, is a 266 amino acid single-pass membrane protein belonging to the cysteine-rich secretory protein (CRISP) family. GLIPR1 also shares similarity with the pathogenesis-related protein (PR) superfamily, and may function as a p53 target gene with tumor suppressor functions. While ubiquitously expressed, GLIPR1 is found at highest levels in heart, lung, kidney, placenta, liver, skeletal muscle and cell lines derived from tumors of the nervous system. GLIPR1 expression is induced by p53 overexpression, exposure to gamma irradiation and doxorubicinis. The gene encoding GLIPR1 maps to human chromosome 12q21.2. and while alternatively spliced isoforms of GLIPR1 are known to exist, not all variants have been characterized.

REFERENCES

1. Murphy, E.V., et al. 1995. The human glioma pathogenesis-related protein is structurally related to plant pathogenesis-related proteins and its gene is expressed specifically in brain tumors. Gene 159: 131-135.
2. Rich, T., et al. 1996. RTVP-1, a novel human gene with sequence similarity to genes of diverse species, is expressed in tumor cell lines of glial but not neuronal origin. Gene 180: 125-130.
3. Ren, C., et al. 2002. mRTVP-1, a novel p53 target gene with proapoptotic activities. Mol. Cell. Biol. 22: 3345-3357.
4. Rosenzweig, T., et al. 2006. Related to testes-specific, vespid, and pathogenesis protein-1 (RTVP-1) is overexpressed in gliomas and regulates the growth, survival, and invasion of glioma cells. Cancer Res. 66: 4139-4148.
5. Ren, C., et al. 2006. Identifi-cation and characterization of RTVP1/GLIPR1-like genes, a novel p53 target gene cluster. Genomics 88: 163-172.
6. Xiang, C., et al. 2007. Cloning and characterization of human RTVP-1b, a novel splice variant of RTVP-1 in glioma cells. Biochem. Biophys. Res. Commun. 362: 612-618.

CHROMOSOMAL LOCATION

Genetic locus: Glipr1 (mouse) mapping to 10 D2.

PRODUCT

GLIPR1 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 GLIPR1 shRNA Plasmid (m): sc-145422-SH and GLIPR1 shRNA (m) Lentiviral Particles: sc-145422-V as alternate gene silencing products.

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.

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

GLIPR1 siRNA (m) is recommended for the inhibition of GLIPR1 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 GLIPR1 gene expression knockdown using RT-PCR Primer: GLIPR1 (m)-PR: sc-145422-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.