SANTA CRUZ BIOTECHNOLOGY, INC.

GIPC2 siRNA (m): sc-75133

BACKGROUND

The eukaryotic PDZ domain is a multifunctional protein-protein interacting motif that is found in a variety of proteins and is involved in both the clustering of signaling molecules and the organization of protein networks. GIPC2 (GIPC PDZ domain containing family, member 2), also known as SEMCAP2, is a 315 amino acid protein that localizes to the cytoplasm and contains one PDZ domain. Expressed at high levels in kidney and colon and at lower levels in adult liver, GIPC2 interacts with SEMA5A and is thought to function as a scaffold protein, possibly modulating cell adhesion and growth factor signaling and playing a role in tumorigenesis. The gene encoding GIPC2 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

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4. Kirikoshi, H. and Katoh, M. 2002. Up-regulation of GIPC2 in human gastric cancer. Int. J. Oncol. 20: 1183-1187.
5. Kirikoshi, H. and Katoh, M. 2002. Expression of WNT7A in human normal tissues and cancer, and regulation of WNT7A and WNT7B in human cancer. Int. J. Oncol. 21: 895-900.
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7. Kuang, S.Q., Tong, W.G., Yang, H., Lin, W., Lee, M.K., Fang, Z.H., Wei, Y., Jelinek, J., Issa, J.P. and Garcia-Manero, G. 2008. Genome-wide identification of aberrantly methylated promoter associated CpG islands in acute lymphocytic leukemia. Leukemia 22: 1529-1538.

CHROMOSOMAL LOCATION

Genetic locus: Gipc2 (mouse) mapping to 3 H3.

PRODUCT

GIPC2 siRNA (m) 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 GIPC2 shRNA Plasmid (m): sc-75133-SH and GIPC2 shRNA (m) Lentiviral Particles: sc-75133-V as alternate gene silencing products.

For independent verification of GIPC2 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-75133A, sc-75133B and sc-75133C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

GIPC2 siRNA (m) is recommended for the inhibition of GIPC2 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 GIPC2 gene expression knockdown using RT-PCR Primer: GIPC2 (m)-PR: sc-75133-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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