SANTA CRUZ BIOTECHNOLOGY, INC.

GP73 siRNA (m): sc-60712

BACKGROUND

GP73 (also known as Golgi phosphoprotein 2, GOLPH 2 or Golgi membrane protein), is a widely expressed, epithelial-specific, type II transmembrane protein which resides in the Golgi apparatus, where it is responsible for the posttranslational modification of proteins produced in the rough ER while assisting in the transport of proteins through the Golgi. The human GP73 gene has been mapped within a BAC and localized to chromosome 9q21.33. GP73 levels rise in those who have been diagnosed with acute and chronic liver diseases.

REFERENCES

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2. Kladney, R.D., et al. 2002. Expression liver disease. Hepatology 35: 1431-1440.
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5. Iftikhar, R., et al. 2004. Disease- and cell-specific expression of GP73 in human liver disease. Am. J. Gastroenterol. 99: 1087-95.
6. Maitra, A., et al. 2004. GP73 and liver disease: a (Golgi) complex enigma. Am. J. Gastroenterol. 99: 1096-1098.
7. Block, T.M., et al. 2005. Use of targeted glycoproteomics to identify serum glycoproteins th with liver cancer in woodchucks and humans. Proc. Natl. Acad. Sci. USA102: 779-784.
8. Marrero, J.A., et al. 2005. GP73, a resident Golgi carcinoma. J. Hepatol. 43: 1007-1012.
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CHROMOSOMAL LOCATION

Genetic locus: Golm1 (mouse) mapping to 13 B2.

PRODUCT

GP73 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 GP73 shRNA Plasmid (m): sc-60712-SH and GP73 shRNA (m) Lentiviral Particles: sc-60712-V as alternate gene silencing products.

For independent verification of GP73 (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-60712A, sc-60712B and sc-60712C.

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

GP73 siRNA (m) is recommended for the inhibition of GP73 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.

GENE EXPRESSION MONITORING

GP73 (E-7): sc-393935 is recommended as a control antibody for monitoring of GP73 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 GP73 gene expression knockdown using RT-PCR Primer: GP73 (m)-PR: sc-60712-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.