

PIG-H siRNA (h): sc-92111

BACKGROUND

Phosphatidylinositol-glycans (PIGs) are multi-pass transmembrane proteins that localize to endoplasmic reticulum (ER). PIGs are crucial for the synthesis of N-acetylglucosaminyl-phosphatidylinositol (GlcNAc-PI), a very early intermediate in glycosylphosphatidylinositol (GPI)-anchor biosynthesis. PIG proteins are components of the GPI transamidase complex and play a role in the recognition of either the GPI attachment signal or the lipid portion of GPI. PIG-H (phosphatidylinositol glycan anchor biosynthesis, class H), also known as phosphatidylinositol N-acetylglucosaminyltransferase subunit H or GPI-H, is a 188 amino acid ER transmembrane protein. PIG-H forms a complex with PIG-A and functions as a subunit of the ER GPI-GlcNAc transferase. PIG-H, PIG-A and PIG-C are required for the first step in GPI anchor biosynthesis. PIG-H also associates with PIG-A, PIG-C and PIG-Q, thereby forming a complex that participates in GPI-GlcNAc transferase activity *in vitro*.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PIGH (human) mapping to 14q24.1.

RESEARCH USE

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

PRODUCT

PIG-H 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PIG-H shRNA Plasmid (h): sc-92111-SH and PIG-H shRNA (h) Lentiviral Particles: sc-92111-V as alternate gene silencing products.

For independent verification of PIG-H (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-92111A, sc-92111B and sc-92111C.

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 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PIG-H siRNA (h) is recommended for the inhibition of PIG-H 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 μ M in 66 μ l. 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 PIG-H gene expression knockdown using RT-PCR Primer: PIG-H (h)-PR: sc-92111-PR (20 μ l). 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.