SANTA CRUZ BIOTECHNOLOGY, INC.

GML siRNA (m): sc-145647

BACKGROUND

GML (glycosyl-phosphatidylinositol-anchored molecule-like protein) is a 158 amino acid membrane protein whose expression is regulated in a p53-dependent manner. Interestingly, GML has been shown to suppress growth in esophageal cancer cell lines and is likely to play a role in the apoptotic pathway. Due to evidence showing increased rates of apoptosis in GML-transfected cancer cell lines, it is suspected that reduced GML expression may correlate with poor response rates to chemotherapy. Significantly, in response to irradiation, the growth of cells expressing GML were inhibited, whereas cells not expressing GML were found to be resistant to ionizing radiation. This evidence further supports GML as a potential marker as a predictor of chemosensitivity. Mapping to chromosome 8, the gene encoding GML is localized to a region where two other genes encoding glycosyl-phosphatidylinositol (GPI) proteins, Ly-6D and TSA-1, are also located.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Gml (mouse) mapping to 15 D3.

PRODUCT

GML 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 GML shRNA Plasmid (m): sc-145647-SH and GML shRNA (m) Lentiviral Particles: sc-145647-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

GML siRNA (m) is recommended for the inhibition of GML 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 GML gene expression knockdown using RT-PCR Primer: GML (m)-PR: sc-145647-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.

PROTOCOLS

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