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Placental lactogen I α shRNA (m) Lentiviral Particles: sc-44370-V

BACKGROUND

Placental lactogens, also referred to as chorionic somatomammotropin hormones, are protein hormones. They are produced in the mammalian placenta and are similar in structure and function to growth hormones. Together, Placental lactogens and growth factors play an essential role to assure successful lactation after pregnancy. Placental lactogens also modify the metabolic state of the mother during pregnancy to supply energy to the fetus. Placental lactogen I exists as three isoforms (designated Placental lactogen I α , Placental lactogen I β and Placental lactogen I γ) and is a member of the somatotropin/prolactin family of hormones. The proteins in this family are crucial in mammalian growth control. The Placental lactogen I isoforms are expressed primarily during mid-pregnancy, and it has been reported that DNA methylation regulates their tissue expression in rats. Placental lactogen II is expressed later in pregnancy and, in mice, its secretion is regulated by the inhibitory control of GH, the concentration of which increases rapidly at the beginning of the last half of pregnancy.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Csh1 (mouse) mapping to 13 A3.1.

PRODUCT

Placental lactogen I α shRNA (m) Lentiviral Particles is a pool of concentrated, transduction-ready viral particles containing 3 target-specific constructs that encode 19-25 nt (plus hairpin) shRNA designed to knock down gene expression. Each vial contains 200 μ l frozen stock containing 1.0×10^6 infectious units of virus (IFU) in Dulbecco's Modified Eagle's Medium with 25 mM HEPES pH 7.3. Suitable for 10-20 transductions. Also see Placental lactogen I α siRNA (m): sc-44370 and Placental lactogen I α shRNA Plasmid (m): sc-44370-SH as alternate gene silencing products.

APPLICATIONS

Placental lactogen I α shRNA (m) Lentiviral Particles is recommended for the inhibition of Placental lactogen I α expression in mouse cells.

SUPPORT REAGENTS

Control shRNA Lentiviral Particles: sc-108080. Available as 200 μ l frozen viral stock containing 1.0×10^6 infectious units of virus (IFU); contains an shRNA construct encoding a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor Placental lactogen I α gene expression knockdown using RT-PCR Primer: Placental lactogen I α (m)-PR: sc-44370-PR (20 μ l). Annealing temperature for the primers should be 55-60 $^\circ$ C and the extension temperature should be 68-72 $^\circ$ C.

BIOSAFETY

Lentiviral particles can be employed in standard Biosafety Level 2 tissue culture facilities (and should be treated with the same level of caution as with any other potentially infectious reagent). Lentiviral particles are replication-incompetent and are designed to self-inactivate after transduction and integration of shRNA constructs into genomic DNA of target cells.

RESEARCH USE

The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

STORAGE

Store lentiviral particles at -80 $^\circ$ C. Stable for at least one year from the date of shipment. Once thawed, particles can be stored at 4 $^\circ$ C for up to one week. Avoid repeated freeze thaw cycles.

PROTOCOLS

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