



PLET-1 siRNA (m): sc-152325

BACKGROUND

PLET1 (placenta-expressed transcript 1 protein), also known as Antigen mAgK114, is a 237 amino acid single-pass type I membrane protein that contains four exons. Linked to wound response functions during healing, PLET1 may promote wound repair and is a potential tool for genetic analysis of development, homeostasis and injury in organ/tissue systems. PLET1 is poorly conserved between species, with only 34% identity existing between mouse PLET1 and the human orthologue. Although highly expressed in porcine and mouse placenta and mouse thymic epithelial progenitor cells, PLET1 is weakly expressed in human. Up-regulated in intercaruncular areas of somatic cell nuclear transfer (SCNT) pregnancies, PLET1 is expressed in endometrium at implantation and in luminal epithelium and likely plays a role in endometrium-trophoblast interactions. The mouse PLET1 gene maps to chromosome 9 B.

REFERENCES

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3. Arai, C., et al. 2006. mAgK114 suppresses lymphocyte infiltration into epidermis in the picryl chloride-induced atopic dermatitis-like skin lesions of NC/Nga mice. *In Vivo* 20: 77-83.
4. Harris, J., et al. 2006. Socs2 and elf5 mediate prolactin-induced mammary gland development. *Mol. Endocrinol.* 20: 1177-1187.
5. Depreter, M.G., et al. 2008. Identification of Plet-1 as a specific marker of early thymic epithelial progenitor cells. *Proc. Natl. Acad. Sci. USA* 105: 961-966.
6. Mansouri-Attia, N., et al. 2009. Endometrium as an early sensor of *in vitro* embryo manipulation technologies. *Proc. Natl. Acad. Sci. USA* 106: 5687-5692.
7. Raymond, K., et al. 2010. Expression of the orphan protein Plet-1 during trichilemmal differentiation of anagen hair follicles. *J. Invest. Dermatol.* 130: 1500-1513.

CHROMOSOMAL LOCATION

Genetic locus: Plet1 (mouse) mapping to 9 B.

PRODUCT

PLET-1 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PLET-1 shRNA Plasmid (m): sc-152325-SH and PLET-1 shRNA (m) Lentiviral Particles: sc-152325-V as alternate gene silencing products.

For independent verification of PLET-1 (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-152325A, sc-152325B and sc-152325C.

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

PLET-1 siRNA (m) is recommended for the inhibition of PLET-1 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 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 PLET-1 gene expression knockdown using RT-PCR Primer: PLET-1 (m)-PR: sc-152325-PR (20 μ l). 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.