SANTA CRUZ BIOTECHNOLOGY, INC.

TIP39 siRNA (m): sc-154280

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BACKGROUND

Tuberoinfundibular peptide of 39 residues (TIP39) and the parathyroid hormone-2 (PTH2) receptor form part of an extended family of related signaling molecules that includes the PTH1 receptor, which responds to PTH and PTH-related protein. The polypeptide TIP39 is a potent activator of the parathyroid hormone (PTH)-2 receptor (PTH2, P2R) and an antagonist of the PTH-1 receptor (PTH1, P1R). TIP39 stimulates cAMP accumulation in cells expressing PTH2, but it is inactive at the PTH1 receptor site. The TIP39 gene encoding the protein maps at chromosome 19q13.33. TIP39 may have an important role in spermatogenesis. Mouse TIP39 differs from human TIP39 by four amino acid residues. TIP39 expression can be seen in testis, seminiferous tubuli, liver, kidney and in several brain regions such as nucleus subparafascicularis thalami, nucleus centralis pontis and nucleus ruber.

REFERENCES

1. Hoare, S.R., Clark, J.A. and Usdin, T.B. 2000. Molecular determinants of tuberoinfundibular peptide of 39 residues (TIP39) selectivity for the parathyroid hormone-2 (PTH2) receptor. N-terminal truncation of TIP39 reverses PTH2 receptor/PTH1 receptor binding selectivity. J. Biol. Chem. 275: 27274-27283.
2. John, M.R., Arai, M., Rubin, D.A., Jonsson, K.B. and Juppner, H. 2002. Identification and characterization of the murine and human gene encoding the tuberoinfundibular peptide of 39 residues. Endocrinology 143: 1047-1057.
3. Eichinger, A., Fiaschi-Taesch, N., Massfelder, T., Fritsch, S., Barthelmebs, M. and Helwig, J.J. 2002. Transcript expression of the tuberoinfundibular peptide (TIP)39/PTH2 receptor system and non-PTH1 receptor-mediated tonic effects of TIP39 and other PTH2 receptor ligands in renal vessels. Endocrinology 143: 3036-3043.
4. Della Penna, K., Kinose, F., Sun, H., Koblan, K.S. and Wang, H. 2003. Tuberoinfundibular peptide of 39 residues (TIP39): molecular structure and activity for parathyroid hormone 2 receptor. Neuropharmacology 44: 141-153.

CHROMOSOMAL LOCATION

Genetic locus: Pth2 (mouse) mapping to 7 B4.

PRODUCT

TIP39 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 TIP39 shRNA Plasmid (m): sc-154280-SH and TIP39 shRNA (m) Lentiviral Particles: sc-154280-V as alternate gene silencing products.

PROTOCOLS

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

TIP39 siRNA (m) is recommended for the inhibition of TIP39 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.

RESEARCH USE

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