SANTA CRUZ BIOTECHNOLOGY, INC.

PRLH siRNA (h): sc-94933

BACKGROUND

PRLH (prolactin releasing hormone), also known as PRH or PRRP (prolactin-releasing peptide), is an 87 amino acid secreted protein that is cleaved into two chains, namely prolactin-releasing peptide PrRP31 and prolactin-releasing peptide PrRP20. Localizing to medulla oblongata and hypothalamus, PRLH is expressed in human pituitary. PRLH participates in neuropeptide hormone activity and functions as a mediator of stress response. PRLH also participates in prolactin-releasing peptide receptor binding. PRLH stimulates release of prolactin, which is important in pregnancy and lactation in mammals, mammary gland development and milk synthesis promotion. PRLH regulates prolactin expression through its G protein-coupled receptor, GPR10, and may stimulate lactotrophs directly to secrete prolactin. PRLH likely modulates reticular thalamic function and is a target for therapies directed at sleep disorders and absence seizures. The gene that encodes PRLH maps to human chromosome 2q37.3.

REFERENCES

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2. Zhang, X., et al. 1999. Expression of prolactin-releasing peptide and its receptor messenger ribonucleic acid in normal human pituitary and pituitary adenomas. J. Clin. Endocrinol. Metab. 84: 4652-4655.
3. Langmead, C.J., et al. 2000. Characterization of the binding of [(125)I]-human prolactin releasing peptide (PrRP) to GPR10, a novel G protein-coupled receptor. Br. J. Pharmacol. 131: 683-688.
4. Seal, L.J., et al. 2000. Prolactin releasing peptide (PrRP) stimulates luteinizing hormone (LH) and follicle stimulating hormone (FSH) via a hypothalamic mechanism in male rats. Endocrinology 141: 1909-1912.
5. Matsumoto, H., et al. 2000. Stimulation of corticotropin-releasing hormone-mediated adrenocorticotropin secretion by central administration of prolactin-releasing peptide in rats. Neurosci. Lett. 285: 234-238.
6. Zhang, S.Q., et al. 2000. Effects of prolactin-releasing peptide (PrRP) on sleep regulation in rats. Psychiatry Clin. Neurosci. 54: 262-264.
7. Lin, S.H., et al. 2002. Neurochemical properties of the prolactin releasing peptide (PrRP) receptor expressing neurons: evidence for a role of PrRP as a regulator of stress and nociception. Brain Res. 952: 15-30.
8. Lin, S.H., et al. 2002. Prolactin-releasing peptide (PrRP) promotes awakening and suppresses absence seizures. Neuroscience 114: 229-238.
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CHROMOSOMAL LOCATION

Genetic locus: PRLH (human) mapping to 2q37.3.

PROTOCOLS

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

PRODUCT

PRLH siRNA (h) 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 PRLH shRNA Plasmid (h): sc-94933-SH and PRLH shRNA (h) Lentiviral Particles: sc-94933-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

PRLH siRNA (h) is recommended for the inhibition of PRLH 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 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.