Prolactin Releasing Peptide (1-31), human

Cat. No.:	HY-P1520
CAS No.:	215510-22-8
Molecular Formula:	$C_{160}H_{252}N_{56}O_{42}S$
Molecular Weight:	3664.15
Sequence:	Ser-Arg-Thr-His-Arg-His-Ser-Met-Glu-Ile-Arg-Thr-Pro-Asp-Ile-Asn-Pro-Ala-Trp-Tyr-Ala-Ser-Arg-Gly-Ile-Arg-Pro-Val-Gly-Arg-Phe-NH2
Sequence Shortening:	SRTHRHSMEIRTPDINPAWYASRGIRPVGRF-NH2
Target:	Others
Pathway:	Others
Storage:	Powder -80°C 2 years -20°C 1 year In solvent -80°C 6 months -20°C 1 month

BIOLOGICAL ACTIVITY

Description	Prolactin Releasing Peptide (1-31), human is a high affinity GPR10 ligand that cause the release of the prolactin. Prolactin Releasing Peptide (1-31) binds to GPR10 for human and rats with K_i values of 1.03 nM and 0.33 nM, respectively. Prolactin Releasing Peptide (1-31) can be used for the research of the hypothalamo-pituitary axis[1][2].
In Vitro	Prolactin Releasing Peptide (1-31) binds to GPR10 for human and rats with K_i values of 1.03 nM and 0.33 nM, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Prolactin Releasing Peptide (1-31) (human) (ICV, 5 nM) increases plasma FSH, total plasma testosterone and significantly increased the release of LHRH from hypothalamic explants in vitro[2]. Prolactin Releasing Peptide (1-31) (human) (ICV, 100 nM) increases the hypothalanic peptides involved in the control of pituitary hormone release, vasoactive intestinal peptide (VIP) and galanin but had no effect on orexin A secretion[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [1]	Rats[1] Groups of rats are injected with either Prolactin Releasing Peptide (1-31) 5 nM or saline. Prolactin Releasing Peptide (1-31), human is dissolved in saline is administered in a total volume of 10 μL. Animals are habituated to the injection procedures by three ICV injections prior to the study to minimize stress in the animals. At 10, 20, 60 minutes following injection, rats are decapitated and trunk blood collected into plastic tubes[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. L J Seal, et al. Prolactin releasing peptide (PrRP) stimulates luteinizing hormone (LH) and follicle stimulating hormone (FSH) via a hypothalamic mechanism in male rats. Endocrinology. 2000 May;141(5):1909-12.

[2]. Langmead CJ, et al. Characterization of the binding of [(125)I]-human prolactin releasing peptide (PrRP) to GPR10, a novel G protein coupled receptor. Characterization of the binding of [(125)I]-human prolactin releasing peptide (PrRP) to GPR10, a novel G protein coupled receptor.

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