

PRODUCT INFORMATION



Prolactin-Releasing Peptide (1-31) (human)

Item No. 24986

CAS Registry No.: 215510-22-8

Formal Name: L-seryl-L-arginyl-L-threonyl-L-histidyl-L-arginyl-L-histidyl-L-seryl-L-methionyl-L- α -glutamyl-L-isoleucyl-L-arginyl-L-threonyl-L-prolyl-L- α -aspartyl-L-isoleucyl-L-asparaginyl-L-prolyl-L-alanyl-L-tryptophyl-L-tyrosyl-L-alanyl-L-seryl-L-arginylglycyl-L-isoleucyl-L-arginyl-L-prolyl-L-valylglycyl-L-arginyl-L-phenylalaninamide

H—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

Synonyms: Human PrRP-31, PrRP(1-31)

MF: C₁₆₀H₂₅₂N₅₆O₄₂S

FW: 3,664.2

Purity: $\geq 95\%$

Supplied as: A lyophilized powder

Storage: -20°C

Stability: ≥ 4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Prolactin-releasing peptide (PrRP) (1-31) (human) is supplied as a lyophilized powder. A stock solution may be made by dissolving the PrRP (1-31) (human) in water. The solubility of PrRP (1-31) (human) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PrRP is a 31-amino acid neuropeptide involved in regulating food intake.¹ It is found in the hypothalamus, medulla, and pituitary in rats.² PrRP is an agonist of the G-protein coupled receptors GPR10/hGR3 and neuropeptide FF receptor (hNPFF2; K_is = 1 and 19 nM, respectively).^{2,3} It stimulates calcium mobilization in HEK293 cells expressing GPR10 (EC₅₀ = 1.5 nM) and radiolabeled GTP γ S binding to membrane homogenates from CHO cells transfected with hNPFF2 (EC₅₀ = 240 nM).^{2,3} PrRP (100 nM) increases the release of gonadotropin-releasing hormone (GnRH; Item No. 24762), vasoactive intestinal peptide (VIP; Item No. 24996), and galanin (Item No. 24456) from rat medial basal hypothalamic explants.⁴ It increases plasma levels of luteinizing hormone, follicle stimulating hormone, and testosterone in male rats when administered at an intracerebroventricular dose of 5 nmol.⁴ PrRP reduces food intake in fasted rats to 58.4, 53.4, and 55.4% of control levels when administered at doses of 1, 5, and 10 nmol, respectively.¹

References

1. Seal, L.G., Small, C.J., Shillo, W.S., *et al.* PRL-releasing peptide inhibits food intake in male rats via the dorsomedial hypothalamic nucleus and not the paraventricular hypothalamic nucleus. *Endocrinology* **142**(10), 4236-4243 (2001).
2. Langmead, C.J., Szekeres, P.G., Chambers, J.K., *et al.* Characterization of the binding of [¹²⁵I]-human prolactin releasing peptide (PrRP) to GPR10, a novel G protein coupled receptor. *Br. J. Pharmacol.* **131**(4), 683-688 (2000).
3. Engström, M., Brandt, A., Wurster, S., *et al.* Prolactin releasing peptide has high affinity and efficacy at neuropeptide FF2 receptors. *J. Pharmacol. Exp. Ther.* **305**(3), 825-832 (2033).
4. Seal, L.J., Small, C.J., Kim, M.S., *et al.* Prolactin releasing peptide (PrRP) stimulates luteinizing hormone (LH) and follicle stimulating hormone (FSH) via a hypothalamic mechanism in male rats. *Endocrinology* **141**(5), 1909-1912 (2000).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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