Prolactin Releasing Peptide (1-31), human acetate

Cat. No.: HY-P1520A

Molecular Formula: $C_{162}H_{26}N_{56}O_{44}S$

Molecular Weight: 3724.17

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

SRTHRHSMEIRTPDINPAWYASRGIRPVGRF-NH_2 (acetate salt)

Sequence Shortening: SRTHRHSMEIRTPDINPAWYASRGIRPVGRF-NH2

Target: GnRH Receptor

Pathway: GPCR/G Protein

Storage: Sealed storage, away from moisture and light, under nitrogen

Powder -80°C 2 years

-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)

SOLVENT & SOLUBILITY

In Vitro

DMSO : 12.5 mg/mL (3.36 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.2685 mL	1.3426 mL	2.6852 mL
	5 mM	---	---	---
	10 mM	---	---	---

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 1.25 mg/mL (0.34 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 1.25 mg/mL (0.34 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Prolactin Releasing Peptide (1-31), human (acetate) is a high affinity GPR10 ligand that causes 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), human (acetate) 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 (acetate) (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.

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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