LKT Laboratories, Inc.

Pituitary Adenylate Cyclase-activating Polypeptide (1-38), human, sheep, rat

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Product Information

Product ID P0006
CAS No. 124123-15-5
Chemical Name

H-His-Ser-Asp-Gly-Ile-Phe-Thr-Asp-Ser-Tyr-Ser-Arg-Tyr-Arg-Lys-Gln-Met-Ala-Val-Lys-Lys-Tyr-Leu-Ala-Ala-Val-Leu-Gly-Lys-Arg-Tyr-Lys-Gln-Arg-Val-Lys-Asn-Lys-NH_2

Synonym PACAP (1-38)

Formula $C_{203}H_{331}N_{63}O_{53}S$
Formula Wt. 4534.36
Melting Point
Purity ≥95%
Solubility Soluble in water.

Bulk quanitites available upon request

Product ID	Size
P0006	0.5 mg
P0006	1 mg
P0006	2.5 mg

Store Temp -20˚C
Ship Temp Ambient

Description Pituitary adenylate cyclase-activating polypeptide (PACAP) is an endogenous peptide that stimulates cAMP production in the anterior pituitary. PACAP and PACAP-related peptide (PRP) regulate immune function and display increases in expression when hosts are challenged with bacterial pathogens. PACAP and PRP also control expression of reproductive hormones such as follicle-stimulating hormone (FSH) and luteinizing hormone (LH). Additionally, PACAP and PRP bind the PAC1 receptor and VPAC1/2 receptors. PACAP itself inhibits K+ amplitude of delayed rectifier K+ channels, exhibiting anti-apoptotic activity in cerebellar granule cells.

References

Nam BH, Moon JY, Kim YO, et al. Structural and functional characterization of pituitary adenylyl cyclase-activating polypeptide (PACAP)/PACAP-related peptide (PRP) and its receptor in olive flounder (Paralichthys olivaceus). Comp Biochem Physiol B Biochem Mol Biol. 2013 Jan;164(1):18-28. PMID: 23026070.

Tam JK, Lee LT, Cheng CH, et al. Discovery of a new reproductive hormone in teleosts: pituitary adenylate cyclase-activating polypeptide-related peptide (PRP). Gen Comp Endocrinol. 2011 Sep 15;173(3):405-10. PMID: 21703272.

Vaudry D, Falluel-Morel A, Bourgault S, et al. Pituitary adenylate cyclase-activating polypeptide and its receptors: 20 years after the discovery. Pharmacol Rev. 2009 Sep;61(3):283-357. PMID: 19805477.

Mei YA, Vaudry D, Basille M, et al. PACAP inhibits delayed rectifier potassium current via a cAMP/PKA transduction pathway: evidence for the involvement of I k in the anti-apoptotic action of PACAP. Eur J Neurosci. 2004 Mar;19(6):1446-58. PMID: 15066141.