

PRODUCT INFORMATION



PACAP (6-27) (human, chicken, mouse, ovine, porcine, rat) (trifluoroacetate salt) Item No. 24771

Formal Name:	L-phenylalanyl-L-threonyl-L- α -aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-lysyl-L-glutamyl-L-methionyl-L-alanyl-L-valyl-L-lysyl-L-lysyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucinamide, trifluoroacetate salt	H—Phe—Thr—Asp—Ser—Tyr—Ser—Arg—Tyr—Arg—Lys—Gln—Met—Ala—Val—Lys—Lys—Tyr—Leu—Ala—Ala—Val—Leu—NH ₂
Synonym:	Pituitary Adenylate Cyclase-activating Peptide (6-27)	
MF:	C ₁₂₁ H ₁₉₃ N ₃₃ O ₃₁ S • XCF ₃ COOH	
FW:	2,638.1	• XCF ₃ COOH
Purity:	≥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

PACAP (6-27) (human, chicken, mouse, ovine, porcine, rat) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the PACAP (6-27) (human, chicken, mouse, ovine, porcine, rat) (trifluoroacetate salt) in water. The solubility of PACAP (6-27) (human, chicken, mouse, ovine, porcine, rat) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PACAP (6-27) is a PACAP receptor antagonist with IC₅₀ values of 1,500, 600, and 300 nM, respectively, for rat PAC₁, rat VPAC₁, and human VPAC₂ recombinant receptors expressed in CHO cells.¹ It binds to PACAP receptors on SH-SY5Y and SK-N-MC human neuroblastoma and T47D human breast cancer cells (IC₅₀s = 24.5, 106, and 105 nM, respectively) and inhibits cAMP accumulation induced by PACAP (1-38) (K_s = 457, 102, and 283 nM, respectively, in SH-SY5Y, SK-N-MC, and T47D cells).² *In vivo*, in newborn pigs, PACAP (6-27) (10 μ M) inhibits vasodilation of pial arterioles induced by PACAP (1-27) (Item No. 24769) and PACAP (1-38) (Item No. 24770).³ It also inhibits PACAP (1-27)-stimulated increases in plasma insulin and glucagon levels and pancreatic venous blood flow in dogs when administered locally to the pancreas at a dose of 500 μ g.⁴

References

1. Gourlet, P., Vandermeers, A., Vandermeers-Piret, M.-C., *et al.* Fragments of pituitary adenylate cyclase activating polypeptide discriminate between type I and II recombinant receptors. *Eur. J. Pharmacol.* **287**(1), 7-11 (1995).
2. Eggenberger, M., Born, W., Zimmermann, U., *et al.* Maxadilan interacts with receptors for pituitary adenylate cyclase activating peptide in human SH-SY5Y and SK-N-MC neuroblastoma cells. *Neuropeptides* **33**(2), 107-114 (1999).
3. Lenti, L., Domoki, F., Kis, D., *et al.* Pituitary adenylate cyclase-activating polypeptide induces pial arteriolar vasodilation through cyclooxygenase-dependent and independent mechanisms in newborn pigs. *Brain Res.* **1165**, 81-88 (2007).
4. Yamaguchi, N., Minassian, T.R., and Yamaguchi, S. Effects of PACAP₁₋₂₇ on the canine endocrine pancreas *in vivo*: Interaction with cholinergic mechanism. *Can. J. Physiol. Pharmacol.* **81**(7), 720-729 (2003).

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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