



Product Data Sheet

Product Name:	PACAP (1-38), amide, human, ovine, rat	
Catalog Number:	AS-22519 (0.5 mg) AS-22520 (1 mg)	Lot Number: See label on vial
Sequence:	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 (3-letter code) HSDGIFTDSYSRYRKQMAVKKYLAAVLGKRYKQRVKNK-NH ₂ (1-letter code)	
Molecular Weight:	4534.3	
Peptide Purity:	>95%	
Appearance:	Lyophilized white powder	
Peptide Reconstitution:	PACAP (1-38) peptide is freely soluble in water.	
Storage:	PACAP (1-38) peptide is shipped at ambient temperature. Upon receipt, store lyophilized peptide at –20°C or lower. Reconstituted peptide can be aliquoted and stored at –20°C or lower.	
Description:	<p>Pituitary adenylate cyclase-activating polypeptide (PACAP), a member of the vasoactive intestinal peptide/secretin/glucagon family, has an amino acid sequence identity of 68% with vasoactive intestinal polypeptide (VIP). PACAP38, derived from a 176-amino acid precursor (preproPACAP), is a 38-amino acid peptide discovered as an ovine hypothalamic neuropeptide. The amino acid sequence of PACAP is identical in all mammals, and in species such as chicken, frog, salmon, only 1–3 amino acids are different. It is abundant in both the central and peripheral nervous systems and exerts a variety of effects. PACAP in pancreatic islets may play a parasympathetic and sensory neurotransmitter role. PACAP stimulates insulin secretion from islets in a glucose-dependent manner at femtomolar concentrations, acting as an insulinotropic factor. PACAP and VIP are two multifunctional neuropeptides modulating innate and adaptive immunity. VIP/PACAP protect T cells from activation-induced cell death through down-regulation of Fas ligand. PACAP immunoreactivity has been shown in nerve fibers innervating the intrapancreatic ganglia as well as the islets of Langerhans in pancreas. PACAP(1-38) is known to stimulate adenylate cyclase to a much greater extent than VIP.</p>	

Reference: Miyata, A. et al. *BBRC* **173**, 1271 (1990).

Published Citations: Kidane, AH. et al. *Endocrinology* **149**, 4177 (2008).

Related Products:

Name	Cat #	Size
Biotin-PACAP (1-38), amide, human, ovine, rat Biotin-HSDGIFTDSYSRYRKQMAVKKYLAAVLGKRYKQRVKNK-NH2	AS-23590	0.5 mg
PACAP (1-38)-Lys(Biotin), amide, human, ovine, rat HSDGIFTDSYSRYRKQMAVKKYLAAVLGKRYKQRVKNKK(Biotin)-NH2	AS-23648	0.5 mg

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