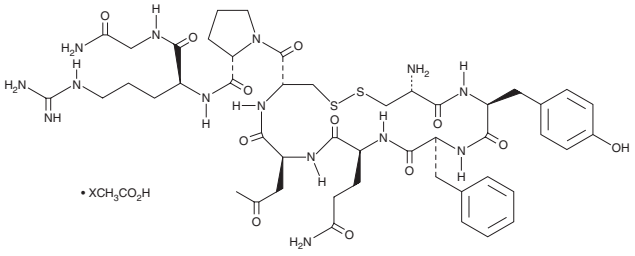
PRODUCT INFORMATION

Argipressin (acetate)

Item No. 24154

CAS Registry No.:	129979-57-3
Formal Name:	8-L-arginine-vasopressin, acetate
Synonyms:	AVP, Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Arg-Gly-NH_2, [Arg^8]-Vasopressin
Peptide Sequence:	CYFQNCPRG-NH_2
MF:	$C_{46}H_{65}N_{15}O_{12}S_2 \bullet XC_2H_4O_2$
FW:	1,084.2
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

Argipressin (acetate) is supplied as a lyophilized powder. A stock solution may be made by dissolving the argipressin (acetate) in water. The solubility of argipressin (acetate) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Argipressin is a peptide hormone with vasoconstrictive and antidiuretic activities that binds to the vascular arginine vasopressin receptor, V_1, with K_d values of 1.31 and 1.44 nM in A_7r_5 rat aortic smooth muscle cells and neonatal rat cardiomyocytes, respectively.[1,2] It also stimulates the intracellular release of calcium in A_7r_5 cells (EC_{50} = 5 nM).[3] In rat models, argipressin induces hypertension and tachycardia when injected into the lateral septal nuclei at a dose of 100-400 ng and increases heart rate and mean arterial pressure (MAP) when injected into the medial amygdaloid body at a dose of 150-600 ng.[4,5]

References

1. Thibonnier, M., Bayer, A.L., Simonson, M.S., *et al.* Multiple signaling pathways of V_1-vascular vasopressin receptors of A_7r_5 cells. *Endocrinology* **129(6)**, 2845-2856 (1991).
2. Xu, Y.J. and Gopalakrishnan, V. Vasopressin increases cytosolic free [Ca^{2+}] in the neonatal rat cardiomyocyte. Evidence for V_1 subtype receptors. *Circ. Res.* **69(1)**, 239-245 (1991).
3. Byron, K.L. Vasopressin stimulates Ca^{2+} spiking activity in A7r5 vascular smooth muscle cells via activation of phospholipase A_2. *Circ. Res.* **78(5)**, 813-820 (1996).
4. Gao, L., Jiang, N.-C., Luo, Q.-H., *et al.* Cardiovascular effects of injection of argipressin into lateral septal nuclei in rats. *Zhongguo Yao Li Xue Bao*. **17(1)**, 49-52 (1996).
5. Jiang, N.-C., Gao, L., Chen, C., *et al.* Effects of argipressin injected into medial amygdaloid body on blood pressure and heart rate in rats. *Zhongguo Yao Li Xue Bao.* **14(2)**, 118-120 (1993).

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