# Argipressin

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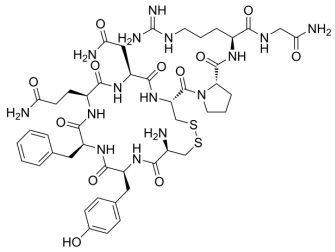
|---|---|
| **Cat. No.:** | HY-P0049 |
| **CAS No.:** | 113-79-1 |
| **Molecular Formula:** | $C_{46}H_{65}N_{15}O_{12}S_2$ |
| **Molecular Weight:** | 1084.23 |
| **Sequence:** | Cys-Tyr-Phe-Gln-Asn-Cys-Pro-Arg-Gly-NH2 (Disulfide bridge: Cys1-Cys6) |
| **Sequence Shortening:** | CYFQNCPRG-NH2 (Disulfide bridge: Cys1-Cys6) |
| **Target:** | Vasopressin Receptor |
| **Pathway:** | GPCR/G Protein |
| **Storage:** | Sealed storage, away from moisture and light, under nitrogen<br>Powder -80°C 2 years<br>-20°C 1 year<br>* In solvent : -80°C, 1 year; -20°C, 6 months (sealed storage, away from moisture and light, under nitrogen) |



## SOLVENT & SOLUBILITY

**In Vitro**

$H_2O$ : 100 mg/mL (92.23 mM; Need ultrasonic)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 0.9223 mL | 4.6116 mL | 9.2231 mL |
| | 5 mM | 0.1845 mL | 0.9223 mL | 1.8446 mL |
| | 10 mM | 0.0922 mL | 0.4612 mL | 0.9223 mL |

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

## BIOLOGICAL ACTIVITY

**Description**

Argipressin (Arg8-vasopressin) binds to the V1, V2, V3-vascular arginine vasopressin receptor, with a $K_d$ value of 1.31 nM in A7r5 rat aortic smooth muscle cells for V1.

**$IC_{50}$ & Target**

V2 Receptor

**In Vitro**

Argipressin binds to the vascular arginine vasopressin receptor, V1, with a $K_d$ value of 1.31 nM in A7r5 rat aortic smooth muscle cells. It also stimulates the intracellular release of calcium in A7r5 cells ($EC_{50}$=5 nM)[1]. AVP-induced $[Ca^{2+}]_i$ signals and immunized activity against S-100 in DRG cell culture. The minimum effective concentrations of Argipressin causing $[Ca^{2+}]_i$ responses are 100 pM in non-neuronal cells in DRG culture[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Chemosphere. 2021 Apr;269:128776.
- Biochem Pharmacol. 2022 Sep 29;115265.
- Front Pharmacol. 2019 Nov 15;10:1380.
- J Cell Mol Med. 2022 Oct 14.
- Front Neurosci. 2022 Mar 25;16:838942.

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## REFERENCES


[1]. Thibonnier M, et al. Multiple signaling pathways of V1-vascular vasopressin receptors of A7r5 cells. Endocrinology. 1991 Dec;129(6):2845-56.

[2]. Moriya T, et al. Vasopressin-induced intracellular $Ca^{2+}$ concentration responses in non-neuronal cells of the rat dorsal root ganglion. Brain Res. 2012 Nov 5;1483:1-12.

[3]. Keun Suk Park, et al. Role of vasopressin in current anesthetic practice. Korean J Anesthesiol. 2017 Jun; 70(3): 245–257.



**Caution: Product has not been fully validated for medical applications. For research use only.**



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