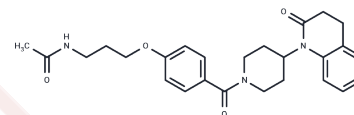


## Fuscoside

## Chemical Properties

CAS No. :	131631-89-5
Formula:	C <sub>26</sub> H <sub>31</sub> N <sub>3</sub> O <sub>4</sub>
Molecular Weight:	449.54
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Fuscoside (OPC-21268) is a non-peptide arginine vasopressin (AVP) receptor VI antagonist with an IC <sub>50</sub> value of 0.4 μM[2].
Targets(IC <sub>50</sub> )	Vasopressin Receptor
In vitro	Fuscoside (OPC-21268) can replace 50% of the specific AVP binding concentration (IC <sub>50</sub> ), including 0.4 μM for V1 receptors and 100 μM for V2 receptors; at the same time, the inhibition constant (K <sub>i</sub> ) of Fuscoside (OPC-21268) for V1 receptors is 0.14 μM[2].
In vivo	<b>METHODS:</b> OPC-21268 was injected intravenously into dogs and rats at doses of 0.3, 1.0, and 3.0 mg/kg to study its antagonistic effects on arginine vasopressin (AVP)-induced vasoconstrictor responses in spinally anesthetized dogs. <b>RESULTS</b> OPC-21268 produced a right-parallel shift of the AVP dose-response curve in a dose-dependent manner; doses of OPC-21268 were similar to those that inhibited AVP-induced vasoconstrictor responses in rats; OPC-21268 acted as a V1-AVP receptor antagonist in peripheral resistance vessels of dogs and rats. [1]

## Solubility Information

Solubility	DMSO: 60 mg/mL (133.47 mM),Sonication is recommended. Ethanol: 11.24 mg/mL (25 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.45 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.2245 mL	11.1225 mL	22.245 mL
5 mM	0.4449 mL	2.2245 mL	4.449 mL
10 mM	0.2224 mL	1.1122 mL	2.2245 mL
50 mM	0.0445 mL	0.2224 mL	0.4449 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Chihara T, et al. OPC-21268 antagonizes arginine vasopressin-induced vasoconstrictor response in the spinally-anesthetized dog. *Jpn J Pharmacol.* 1995 Jul;68(3):345-7.

Yamamura Y, et al. OPC-21268, an orally effective, nonpeptide vasopressin V1 receptor antagonist. *Science.* 1991 Apr 26;252(5005):572-4.

Thibonnier M, et al. A molecular model of agonist and nonpeptide antagonist binding to the human V(1) vascular vasopressin receptor. *J Pharmacol Exp Ther.* 2000 Jul;294(1):195-203.

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