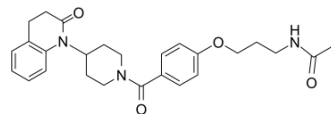


Fuscoside

Cat. No.:	HY-15009		
CAS No.:	131631-89-5		
Molecular Formula:	C ₂₆ H ₃₁ N ₃ O ₄		
Molecular Weight:	449.54		
Target:	Vasopressin Receptor		
Pathway:	GPCR/G Protein		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (111.22 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
	Preparing Stock Solutions	1 mM	2.2245 mL	11.1225 mL
	5 mM	0.4449 mL	2.2245 mL	
	10 mM	0.2224 mL	1.1122 mL	
	Please refer to the solubility information to select the appropriate solvent.			
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.56 mM); Clear solution			
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.56 mM); Clear solution			
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.56 mM); Clear solution			

BIOLOGICAL ACTIVITY

Description	Fuscoside (OPC-21268) is an orally effective, nonpeptide, vasopressin V1 receptor antagonist with an IC ₅₀ of 0.4 μM.
IC ₅₀ & Target	IC ₅₀ : 0.4 μM (vasopressin V1) Ki: 0.14 μM (vasopressin V1) ^[1]
In Vitro	The concentration of Fuscoside (OPC-21268) that displaces 50% of specific AVP binding (IC ₅₀) is 0.4 μM for V1 receptors and

100 μ M for V2 receptors. The inhibition constant (K_i) of Fuscocide (OPC-21268) for V1 receptors (0.14 μ M)^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Fuscocide (OPC-21268) competitively and specifically antagonizes pressor responses to AVP in vivo. Oral administration of Fuscocide (OPC-21268) (10 mg/kg) inhibits the vasoconstriction induced by exogenous AVP in a dose- and time-dependent manner and the effect lasts for more than 8 hours at 30 mg/kg^[1]. Fuscocide (OPC-21268) predominantly exerts a protective effect in areas where the maximum amount of blood-brain barrier breakdown occurs, and it is effective in the treatment of cold-induced vasogenic brain edema. Fuscocide (OPC-21268) treatment at the dosages of 200 and 300 mg/kg significantly reduces brain water content in both hemispheres. Swelling of the traumatized hemispheres is also significantly reduced at 200 and 300 mg/kg dosages^[2].

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

PROTOCOL

Animal Administration ^[1]

Rats^[1]

Male Sprague-Dawley rats, 300 to 400 g, are injected with Fuscocide (OPC-21268) (0.1, 0.3, 1 mg/kg). Fuscocide (OPC-21268) is given 2 min before the injection of AVP at 30 mU/kg i.v., angiotensin II at 0.3 μ g/kg i.v., and noradrenaline at 3 μ g/kg i.v.^[1].

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

REFERENCES

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

[2]. Bemana I, et al. Treatment of brain edema with a nonpeptide arginine vasopressin V1 receptor antagonist OPC-21268 in rats. *Neurosurgery*. 1999 Jan;44(1):148-54.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA