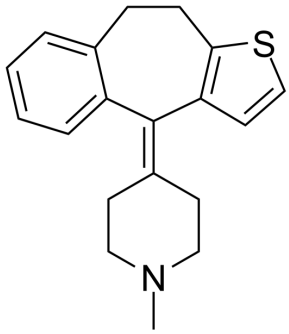
Pizotifen



Cat. No.:	HY-B0115
CAS No.:	15574-96-6
Molecular Formula:	$C_{19}H_{21}NS$
Molecular Weight:	295.44
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year

SOLVENT & SOLUBILITY

In Vitro

DMSO : 20 mg/mL (67.70 mM; Need ultrasonic)

H_2O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.3848 mL	16.9239 mL	33.8478 mL
5 mM	0.6770 mL	3.3848 mL	6.7696 mL
10 mM	0.3385 mL	1.6924 mL	3.3848 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 mg/mL (6.77 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2 mg/mL (6.77 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2 mg/mL (6.77 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Pizotifen (Pizotyline) is a potent 5-HT_2 receptor antagonist, with a high affinity for 5-HT_{1C} binding site.	
IC_{50} & Target	5-HT_{2A} Receptor	5-HT_{1C} Receptor
In Vitro	Pizotifen (BC-105) is a potent 5-HT_2 receptor antagonist, with a high affinity for 5-HT_{1C} binding site[1]. Pizotifen is an antidepresent 5-HT_{2A} receptor antagonist and has the capacity to inhibit serotonin-enhanced ADP-induced platelet	

	aggregation[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	The weights of the fetuses are significantly reduced by all administered doses of Pipethiadene and Pizotifen (BC-105); the weights of the placentas are significantly reduced after 0.6 and 1.2 mg/kg Pipethiadene and only after the middle dose of Pizotifen. The means of the implantations, live, dead fetuses, resorptions and the occurrence of external, skeletal and visceral anomalies do not differ from the control group. The number of chromosome aberrations in the bone marrow cells of treated mice does not differ significantly from the negative control group. The micronucleus test reveals no elevation in the frequency of micronuclei as compared to the control group. After the two higher doses of both Pipethiadene and Pizotifen (BC-105) maleate, the mitotic indices are lower than in the control group[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- PLoS Negl Trop Dis. 2019 Aug 20;13(8):e0007681.
- Exp Ther Med. 2020 Feb;19(2):817-824.

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REFERENCES

[1]. Mylecharane EJ, et al. 5-HT2 receptor antagonists and migraine therapy. J Neurol. 1991;238 Suppl 1:S45-52.

[2]. Lin OA, et al. The antidepressant 5-HT2A receptor antagonists pizotifen and cyproheptadine inhibit serotonin-enhanced platelet function. PLoS One. 2014 Jan 23;9(1):e87026.

[3]. Ujházy E, et al. Teratological and cytogenetical evaluation of two antihistamines (pipethiadene and pizotifen maleate) in mice. Agents Actions. 1988 Apr;23(3-4):376-8.

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