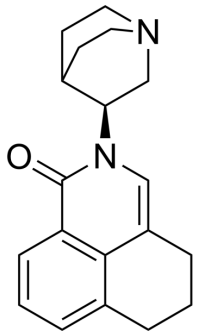
Dehydro Palonosetron

Cat. No.:	HY-44132
CAS No.:	135729-56-5
Molecular Formula:	$C_{19}H_{22}N_2O$
Molecular Weight:	294.39
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dehydro Palonosetron (RS 42358-197) is a potent, seslective and orally active 5-HT3 receptor antagonist. Dehydro Palonosetron has no effect on the activities of 5-HT1 receptors, 5-HT2 receptors or 5-HT4 receptors[1].
IC_{50} & Target	5-HT_3 Receptor
In Vitro	In functional experiments in vitro, Dehydro Palonosetron (RS 42358-197) behaves as a competitive antagonist against 5-HT-induced contractions in the guinea pig ileum, yielding a pA2 estimate of 8.1. Dehydro Palonosetron is devoid of any agonistic or antagonistic activity at 5-HT1-like receptors, 5-HT2 receptors or 5-HT4 receptors[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	In anesthetized rats, Dehydro Palonosetron (RS 42358-197), administered by the intravenous, intraduodenal or transdermal route, dose-dependently inhibited the Bezold-Jarisch reflex induced by 2-methyl 5-HT (ID50:0.05 μg/kg; i.v., 5.7 μg/kg; i.d., and 11.6 μg/chamber, respectively)[1]. Dehydro Palonosetron (RS 42358-197; 0.01 ng/kg-10 mg/kg; oral administration; once) disinhibits behaviour in the mouse suppressed by the aversive situation of the light/dark test box[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male albino BKW mice (30-35 g)[2]
Dosage:	0.01 ng/kg, 0.1 ng/kg, 1 ng/kg, 100 ng/kg, 1 μg/kg, 100 μg/kg, 1 mg/kg, 10 mg/kg
Administration:	Oral administration; once
Result:	Increased the proportion of time mice spent and the number of rearings and line crossings in the light area of the test chamber.

REFERENCES

[1]. R M Eglen, et al. RS 42358-197, a novel and potent 5-HT3 receptor antagonist, in vitro and in vivo. J Pharmacol Exp Ther. 1993 Aug;266(2):535-43.

[2]. B Costall, et al. The effect of the 5-HT3 receptor antagonist, RS-42358-197, in animal models of anxiety. Eur J Pharmacol. 1993 Mar 30;234(1):91-9.

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

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