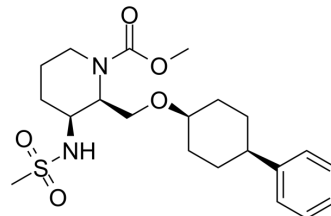


Danavorexton

Cat. No.:	HY-133898	
CAS No.:	2114324-48-8	
Molecular Formula:	C ₂₁ H ₃₂ N ₂ O ₅ S	
Molecular Weight:	424.55	
Target:	Orexin Receptor (OX Receptor)	
Pathway:	GPCR/G Protein; Neuronal Signaling	
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 (117.77 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.3554 mL	11.7772 mL	23.5544 mL
	5 mM	0.4711 mL	2.3554 mL	4.7109 mL
	10 mM	0.2355 mL	1.1777 mL	2.3554 mL

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

BIOLOGICAL ACTIVITY

Description

Danavorexton (TAK-925) is an orexin receptor agonist with brain permeability. Danavorexton induces a physiological pattern of OX2R activation in vitro to wake up sleepy mice and improve sleepiness symptoms^{[1][2][3][4]}.

In Vivo

Danavorexton (1, 10 mg/kg or 1, 3 mg/kg, subcutaneous injection) dose-dependent enhanced arousal in common marmosets and cynomolgus monkeys^[2].

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

Animal Model:	Common marmosets and cynomolgus monkeys models ^[2]
Dosage:	1, 10 mg/kg (1, 3 mg/kg)
Administration:	s.c.
Result:	Decreased SWS I (Sleeping With Sirens I), SWS II (Sleeping With Sirens II) and REM (Rapid

Eye Movement) sleep time.

REFERENCES

- [1]. Evans R, et al. Orexin 2 receptor-selective agonist danavorexton (TAK-925) promotes wakefulness in non-human primates and healthy individuals. *J Sleep Res.* 2023 Oct;32(5):e13878
- [2]. Ishikawa T, et al. Danavorexton, a selective orexin 2 receptor agonist, provides a symptomatic improvement in a narcolepsy mouse model. *Pharmacol Biochem Behav.* 2022 Oct;220:173464.
- [3]. Fujimoto T, et al. Discovery of TAK-925 as a Potent, Selective, and Brain-Penetrant Orexin 2 Receptor Agonist. *ACS Med Chem Lett.* 2022 Feb 4;13(3):457-462.
- [4]. International Nonproprietary Names for Pharmaceutical Substances (INN). WHO Drug Information, Vol. 34, No. 2, 2020.
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Caution: Product has not been fully validated for medical applications. For research use only.

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