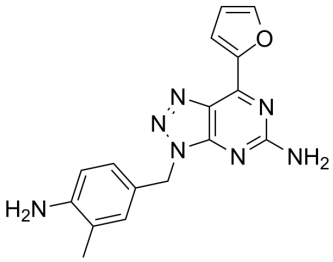
Vipadenant

Cat. No.:	HY-10857
CAS No.:	442908-10-3
Molecular Formula:	$C_{16}H_{15}N_7O$
Molecular Weight:	321.34
Target:	Adenosine Receptor
Pathway:	GPCR/G Protein
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 : 31 mg/mL (96.47 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1120 mL	15.5598 mL	31.1197 mL
	5 mM	0.6224 mL	3.1120 mL	6.2239 mL
	10 mM	0.3112 mL	1.5560 mL	3.1120 mL

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

BIOLOGICAL ACTIVITY

Description

Vipadenant (BIIB-014; CEB-4520) is an adenosine receptor antagonist, with K_is of 1.3 nM and 68 nM for A_{2A} and A_1, respectively.

IC_{50} & Target

Ki: 1.3 nM (A_{2A}), 68 nM (A_1)[1], 1005 nM (A_3)[2]

In Vivo

Vipadenant (0.3-30 mg/kg) produces a dose-dependent reduction in catalepsy. Vipadenant (10 mg/kg) does not produce any statistically significant dyskinetic episodes in 6-OHDA-lesioned rats during a 19-day dosing regimen[1]. In the mouse and rat haloperidol-induced hypolocomotion models, vipadenant has a minimum effective dose of 0.1 and 1 mg/kg, respectively. Vipadenant (3 and 10 mg/kg, p.o.) is able to increase contralateral rotations in 6-OHDA lesioned rats[2].

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

CUSTOMER VALIDATION

- Pharmaceutics. 2018 Dec 3;10(4). pii: E260.

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REFERENCES

[1]. Jones N, et al. A2A receptor antagonists do not induce dyskinesias in drug-naive or L-dopa sensitized rats. Brain Res Bull. 2013 Sep;98:163-9.

[2]. Brian C. Shook, et al. Adenosine A2A Receptor Antagonists and Parkinson's Disease. ACS Chem Neurosci. 2011 Oct 19; 2(10): 555-567.

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