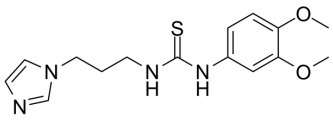
PBD-150

Cat. No.:	HY-119173
CAS No.:	790663-33-1
Molecular Formula:	$C_{15}H_{20}N_4O_2S$
Molecular Weight:	320.41
Target:	Amyloid-β
Pathway:	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 : 125 mg/mL (390.13 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1210 mL	15.6050 mL	31.2100 mL
	5 mM	0.6242 mL	3.1210 mL	6.2420 mL
	10 mM	0.3121 mL	1.5605 mL	3.1210 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: ≥ 2.08 mg/mL (6.49 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.49 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.49 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

PBD-150 is a human glutaminyl cyclase (hQC) Y115E-Y117E variant inhibitor, with a K_i value of 490 nM[1][2].

In Vivo

PBD-150 is able to reduce the deposition of pyroglutamate-modified amyloid-β peptides in brain of transgenic mouse models of Alzheimer disease, leading to a significant improvement of learning and memory in those transgenic animals[3].

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

REFERENCES

[1]. Buchholz M, et al. The first potent inhibitors for human glutaminyl cyclase: synthesis and structure-activity relationship. J Med Chem. 2006 Jan 26;49(2):664-77.

[2]. DiPisa F, et al. The soluble Y115E-Y117E variant of human glutaminyl cyclase is a valid target for X-ray and NMR screening of inhibitors against Alzheimer disease. Acta Crystallogr F Struct Biol Commun. 2015 Aug;71(Pt 8):986-92.

[3]. Huang KF, et al. Structures of human Golgi-resident glutaminyl cyclase and its complexes with inhibitors reveal a large loop movement upon inhibitor binding. J Biol Chem. 2011 Apr 8;286(14):12439-49.

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