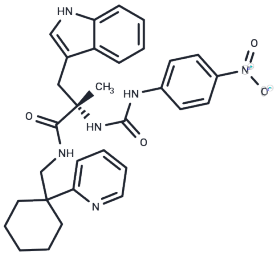
Data Sheet (Cat.No.T8691)

PD 168368

Chemical Properties



CAS No. : 204066-82-0

Formula: C31H34N6O4

Molecular Weight: 554.64

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	PD 168368 is a novel, potent, competitive and selective nonpeptide neuromodulin B receptor (NMB-R) antagonist with inhibitory effects on the gastrin-releasing peptide receptor (GRPR).PD 168368 is a potent mixed agonist of FPR1/FPR2/FPR3.
Targets(IC50)	Bombesin Receptor
In vitro	PD 168368 exhibits high activity and induces [Ca2+]I release in human neutrophils, with EC50 values in the nanomolar range[3]. In the human breast cancer cell line MDA-MB-231, PD 168368 suppresses migration and invasion. It also reduces epithelial-mesenchymal transition (EMT) by upregulating E-cadherin and downregulating vimentin. At a concentration of 5 μM, PD 168368 inhibits migration and invasiveness in breast cancer cells[4]. Furthermore, at a concentration of 10 μM, PD 168368 suppresses the activation of the mTOR/p70S6K/4EBP1 and AKT/GSK-3β pathways in breast cancer cells[4].
In vivo	In mice, PD 168368 potently inhibits the in vivo metastasis of breast cancer. Administered at a dose of 1.2 mg/kg through intraperitoneal injection for 30 days, PD 168368 effectively inhibits breast cancer metastasis[4].

Solubility Information

Solubility	DMSO: 20 mg/mL (36.06 mM),Sonication is recommended. DMF: 5 mg/mL (9.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.803 mL	9.0149 mL	18.0297 mL
5 mM	0.3606 mL	1.803 mL	3.6059 mL
10 mM	0.1803 mL	0.9015 mL	1.803 mL
50 mM	0.0361 mL	0.1803 mL	0.3606 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

R R Ryan, et al. Comparative pharmacology of the nonpeptide neuromedin B receptor antagonist PD 168368. J Pharmacol Exp Ther. 1999 Sep;290(3):1202-11.