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Product Data Sheet

BRD0209

Cat. No.:	HY-117822
CAS No.:	1597439-87-6
Molecular Formula:	$C_{22}H_{25}N_3O$
Molecular Weight:	347.45
Target:	GSK-3
Pathway:	PI3K/Akt/mTOR; Stem Cell/Wnt
Storage:	Powder -20°C 3 years
	4°C 2 years
	In solvent -80°C 6 months
	-20°C 1 month
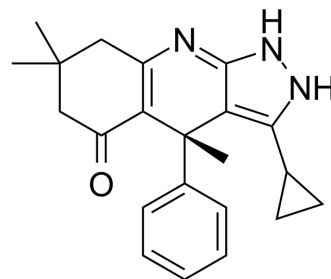
SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (179.88 mM; Need ultrasonic)

Preparing Stock Solutions

Mass / Solvent Concentration	1 mg	5 mg	10 mg
1 mM	2.8781 mL	14.3906 mL	28.7811 mL
5 mM	0.5756 mL	2.8781 mL	5.7562 mL
10 mM	0.2878 mL	1.4391 mL	2.8781 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 (5.99 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.99 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.99 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BRD0209 is a potent, selective and dual inhibitor of GSK3α/β inhibitor (GSK3α IC_{50} = 19 nM; GSK3β IC_{50} = 5 nM). BRD0209 is also a reversible ATP-competitive inhibitor with fast-off kinetics (K_i = 4.2 nM, respectively). BRD0209 is a tricyclic pyrazolotetrahydroquinolinone compound. BRD0209 has the potential for the research of mood disorder diseases[1].

REFERENCES

[1]. Wagner FF, et al. Inhibitors of Glycogen Synthase Kinase 3 with Exquisite Kinome-Wide Selectivity and Their Functional Effects. ACS Chem Biol. 2016;11(7):1952-1963.

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