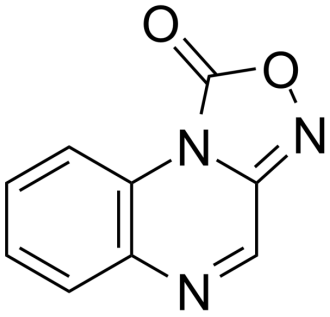
ODQ

Cat. No.:	HY-101255
CAS No.:	41443-28-1
Molecular Formula:	$C_9H_5N_3O_2$
Molecular Weight:	187.15
Target:	Guanylate Cyclase; Apoptosis
Pathway:	GPCR/G Protein; Apoptosis
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 : 100 mg/mL (534.33 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	5.3433 mL	26.7165 mL	53.4331 mL
	5 mM	1.0687 mL	5.3433 mL	10.6866 mL
	10 mM	0.5343 mL	2.6717 mL	5.3433 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 5 mg/mL (26.72 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ODQ is a potent and selective soluble guanylyl cyclase (sGC, nitric oxide-activated enzyme) inhibitor. ODQ enhances the pro-apoptotic effects of Cisplatin in human mesothelioma cells[1].

In Vitro

At 30 and 50 μM, ODQ causes significant induction of apoptosis in the NCI-H2452 cells, elevating apoptotic levels by 12 fold and 15 fold, respectively. At 10μM, a concentration below the threshold for induction of apoptosis by ODQ, ODQ in combination with Cisplatin enhanced (in fact, doubled) the pro-apoptotic effects of Cisplatin at 1 μM[1].

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

In Vivo

ODQ (2 mg/kg; i.p.) reduces the multiple organ injury and dysfunction caused by wall fragments of Gram-positive or Gram-negative bacteria in the anesthetized rat[2].

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

Animal Model:	Anesthetized, male Wistar rats[2]
Dosage:	2 mg/kg
Administration:	I.p.
Result:	Attenuated the renal dysfunction, lung injury, and hepatocellular injury caused by lipoteichoic acid/peptidoglycan or lipopolysaccharide.

REFERENCES

[1]. Ronald Fiscus, et al. ODQ, an inhibitor of soluble guanylyl cyclase (nitric oxide-activated enzyme), enhances the pro-apoptotic effects of cisplatin in human mesothelioma cells. Cancer Res May 1 2007 (67) (9 Supplement) LB-43.

[2]. Zacharowski K, et al. The selective guanylate cyclase inhibitor ODQ reduces multiple organ injury in rodent models of Gram-positive and Gram-negative shock. Crit Care Med. 2001;29(8):1599-1608.

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