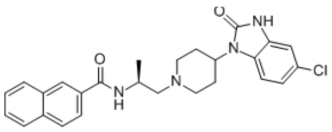
VU0155069

Cat. No.:	HY-108612
CAS No.:	1130067-06-9
Molecular Formula:	$C_{26}H_{27}ClN_4O_2$
Molecular Weight:	462.97
Target:	Phospholipase
Pathway:	Metabolic Enzyme/Protease
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 : 50 mg/mL (108.00 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1600 mL	10.7998 mL	21.5997 mL
	5 mM	0.4320 mL	2.1600 mL	4.3199 mL
	10 mM	0.2160 mL	1.0800 mL	2.1600 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: ≥ 2.5 mg/mL (5.40 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

VU0155069 (CAY10593), is a selective phospholipase D1 (PLD1) inhibitor with an IC_{50} value of 46 nM in vitro. VU0155069 (CAY10593) strongly inhibits the invasive migration of several cancer cell lines in transwell assays[1][2].

IC_{50} & Target

PLD1	PLD2
46 nM (IC_{50})	933 nM (IC_{50})

In Vitro

VU0155069 (0.5 μM, 1 h) significantly inhibits (R)-DOI (3 μM)-induced [^{3}H]PtdBut production in MCF-7 cells[3].

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

REFERENCES

[1]. Barclay Z, et al. Attenuated PLD1 association and signalling at the H452Y polymorphic form of the 5-HT(2A) receptor. Cell Signal. 2013 Apr;25(4):814-21.

[2]. Scott SA, et al. Design of isoform-selective phospholipase D inhibitors that modulate cancer cell invasiveness. Nat Chem Biol. 2009 Feb;5(2):108-17.

[3]. Lewis JA, et al. Design and synthesis of isoform-selective phospholipase D (PLD) inhibitors. Part I: Impact of alternative halogenated privileged structures for PLD1 specificity. Bioorg Med Chem Lett. 2009 Apr 1;19(7):1916-20.

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