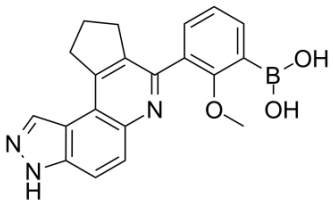
HSD1590

Cat. No.:	HY-126275
CAS No.:	2379279-96-4
Molecular Formula:	$C_{20}H_{18}BN_3O_3$
Molecular Weight:	359.19
Target:	ROCK
Pathway:	Cell Cycle/DNA Damage; Cytoskeleton; Stem Cell/Wnt; TGF-beta/Smad
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 : 100 mg/mL (**278.40 mM;** Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7840 mL	13.9202 mL	27.8404 mL
	5 mM	0.5568 mL	2.7840 mL	5.5681 mL
	10 mM	0.2784 mL	1.3920 mL	2.7840 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: ≥ 6.25 mg/mL (17.40 mM); Clear solution
2. Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
   Solubility: ≥ 6.25 mg/mL (17.40 mM); Clear solution
3. Add each solvent one by one: **10% DMSO >> 90% corn oil**
   Solubility: ≥ 6.25 mg/mL (17.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

HSD1590 is potent **ROCK** inhibitor, with **IC_{50}**s of 1.22 and 0.51 nM for ROCK1 and ROCK2, respectively. HSD1590 exhibits single digit nanomolar binding to ROCK (K_ds<2 nM). HSD1590 displays low cytotoxicity[1].

IC_{50} & Target

ROCK1	ROCK2
1.22 nM (IC_{50})	0.51 nM (IC_{50})

In Vitro

HSD1590 (0.5-1 μM; 24 hours) exhibits an impressive attenuation in migration[1].
HSD1590 (0.5-10 μM; 12-24 horus) shows that the excellent migration inhibition observed is not due to cell death, but inhibition of live cell migration[1].

Cell Viability Assay[1]

Cell Line:	MDA-MB-23 cells
Concentration:	0.5-10 μM
Incubation Time:	12-24 hours
Result:	Exhibited approximately 80% viability at 12 hours and yielded an overall viability of 63% at 24 h.

REFERENCES

[1]. Dayal N, et al. Potently inhibiting cancer cell migration with novel 3H-pyrazolo[4,3-f]quinoline boronic acid ROCK inhibitors. Eur J Med Chem. 2019 Oct 15;180:449-456.

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