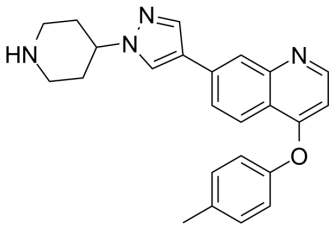
HS-1371

Cat. No.:	HY-114349
CAS No.:	2158197-70-5
Molecular Formula:	$C_{24}H_{24}N_4O$
Molecular Weight:	384.47
Target:	RIP kinase
Pathway:	Apoptosis
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 : 16.67 mg/mL (43.36 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6010 mL	13.0049 mL	26.0098 mL
	5 mM	0.5202 mL	2.6010 mL	5.2020 mL
	10 mM	0.2601 mL	1.3005 mL	2.6010 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: ≥ 1.67 mg/mL (4.34 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.67 mg/mL (4.34 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.67 mg/mL (4.34 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	HS-1371 is a potent and ATP-competitive receptor-interacting protein kinase 3 (RIP3) inhibitor with an IC_{50} of 20.8 nM[1].
IC_{50} & Target	IC50: 20.8 nM (RIP3)[1]
In Vitro	HS-1371 directly binds to RIP3 in an ATP-competitive and time-independent manner. HS-1371 has an inhibitory effect on RIP3 kinase activity in various cell lines[1].

HS-1371 (0.1, 1, 5, 10, 20 μM, 9 h) can block RIP3 S227 phosphorylation[1].

HS-1371 (0.1, 1, 5, 10 μM, 24 h) rescues cells from RIP3-dependent necroptotic cell death but not apoptotic cell death[1].

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

Western Blot Analysis[1]

Cell Line:	HT-29 cells
Concentration:	0.1, 1, 5, 10, 20 μM
Incubation Time:	9 hours
Result:	Showed an inhibitory effect on S227 auto-phosphorylation of RIP3[1].

REFERENCES

[1]. Park HH, et al. HS-1371, a novel kinase inhibitor of RIP3-mediated necroptosis. Exp Mol Med. 2018 Sep 20;50(9):125.

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