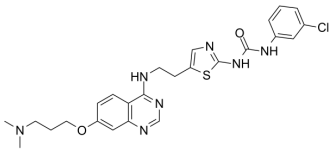
BPR1K871

Cat. No.:	HY-100865
CAS No.:	2443767-35-7
Molecular Formula:	$C_{25}H_{28}ClN_7O_2S$
Molecular Weight:	526.05
Target:	FLT3
Pathway:	Protein Tyrosine Kinase/RTK
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 : 125 mg/mL (237.62 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9010 mL	9.5048 mL	19.0096 mL
	5 mM	0.3802 mL	1.9010 mL	3.8019 mL
	10 mM	0.1901 mL	0.9505 mL	1.9010 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 (3.95 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BPR1K871 is a potent and selective dual FLT3/AURKA inhibitor with IC_{50}s of 19 nM and 22 nM for FLT3 and AURKA, respectively, acts as a preclinical development candidate for anti-cancer therapy[1].

IC_{50} & Target

IC50: 19 nM (FLT3), 22 nM (AURKA)[1]

In Vitro

BPR1K871 shows potent anti-proliferative activities in MOLM-13 and MV4-11 AML cells with an EC_{50} of ~ 5 nM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

BPR1K871 is a multi-kinase inhibitor for the treatment of acute myeloid leukemia (AML) and solid tumors[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Hsu YC, et al. Discovery of BPR1K871, a quinazoline based, multi-kinase inhibitor for the treatment of AML and solid tumors: Rational design, synthesis, in vitro and in vivo evaluation. 2016 Dec 27; 7(52): 86239–86256.

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