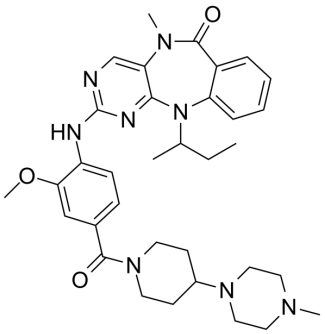
JWG-071

Cat. No.:	HY-108886
CAS No.:	2250323-50-1
Molecular Formula:	$C_{34}H_{44}N_8O_3$
Molecular Weight:	612.76
Target:	ERK
Pathway:	MAPK/ERK Pathway; Stem Cell/Wnt
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 (163.20 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6320 mL	8.1598 mL	16.3196 mL
	5 mM	0.3264 mL	1.6320 mL	3.2639 mL
	10 mM	0.1632 mL	0.8160 mL	1.6320 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 (4.08 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.08 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.08 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

JWG-071 is the first reported kinase-selective chemical probe for ERK5. JWG-071 improves ERK5 activity and BRD4 selectivity. JWG-071 will be a much-needed chemical probe for deconvoluting ERK5 and BRD4 pharmacology[1].

IC_{50} & Target

ERK5
88 nM (IC_{50})

In Vitro

JWG-071 inhibits ERK5 and LRRK2 with IC_{50} of 88 and 109 nM, respectively[1].

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

REFERENCES

[1]. Wang J, et al. Structural and Atropisomeric Factors Governing the Selectivity of Pyrimido-benzodiazipinonesas Inhibitors of Kinases and Bromodomains. ACS Chem Biol. 2018 Sep 21;13(9):2438-2448

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