MARK-IN-4

Cat. No.: HY-112266

CAS No.: 1990492-86-8

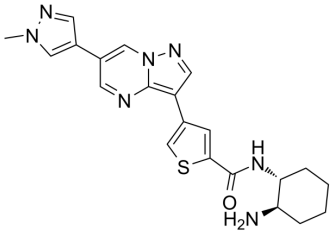
Molecular Formula: $C_{21}H_{23}N_7OS$

Molecular Weight: 421.52

Target: AMPK

Pathway: Epigenetics; PI3K/Akt/mTOR

Storage: -20°C, protect from light, stored under nitrogen
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (237.24 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3724 mL	11.8618 mL	23.7237 mL
	5 mM	0.4745 mL	2.3724 mL	4.7447 mL
	10 mM	0.2372 mL	1.1862 mL	2.3724 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 (5.93 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.93 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.93 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MARK-IN-4 is a potent microtubule affinity regulating kinase (MARK) inhibitor with an IC_{50} of 1 nM. Inhibition of microtubule affinity regulating kinase (MARK) represents a potentially attractive means of arresting neurofibrillary tangle pathology in Alzheimer's disease[1].

REFERENCES

[1]. Sloman DL, et al. Optimization of microtubule affinity regulating kinase (MARK) inhibitors with improved physical properties. Bioorg Med Chem Lett. 2016;26(17):4362-4366.

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