(+)-SHIN1

Cat. No.: HY-112066A

CAS No.: 2443966-90-1

Molecular Formula: $C_{24}H_{24}N_4O_2$

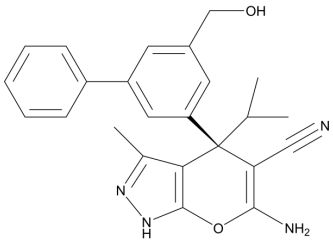
Molecular Weight: 400.47

Target: SHMT

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, stored under nitrogen

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (249.71 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.4971 mL	12.4853 mL	24.9707 mL
5 mM	0.4994 mL	2.4971 mL	4.9941 mL
10 mM	0.2497 mL	1.2485 mL	2.4971 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 (6.24 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.24 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.24 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(+)-SHIN1 ((+)-RZ-2994) is an active (+) enantiomer of SHIN1[1].

In Vitro

(+)-SHIN1 ((+)-RZ-2994) is potent against cytosolic SHMT1 with an IC_{50} for blocking growth of less than 50 nM and 870 nM in SHMT2 deletion cells and HCT-116 cells, respectively[1].

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

CUSTOMER VALIDATION

- Commun Biol. 2022 Jun 23;5(1):619.

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REFERENCES

[1]. Ducker GS, et al. Human SHMT inhibitors reveal defective glycine import as a targetable metabolic vulnerability of diffuse large B-cell lymphoma. Proc Natl Acad Sci U S A. 2017 Oct 24;114(43):11404-11409.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA