Syk-IN-4

Cat. No.: HY-131341

CAS No.: 2932264-95-2

Molecular Formula: $C_{21}H_{25}N_9O$

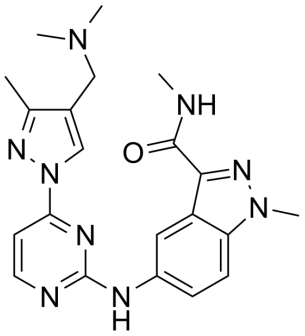
Molecular Weight: 419.48

Target: Syk

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 : 62.5 mg/mL (148.99 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3839 mL	11.9195 mL	23.8390 mL
	5 mM	0.4768 mL	2.3839 mL	4.7678 mL
	10 mM	0.2384 mL	1.1920 mL	2.3839 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 (4.96 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.08 mg/mL (4.96 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.96 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Syk-IN-4 is a potent, selective and orally bioavailable SYK inhibitor with an IC_{50} of 0.31 nM. SYK has emerged as a potential target for autoimmunity and hematological cancers[1].

IC_{50} & Target

IC50: 0.31 nM (SYK)[1]

In Vitro

Syk-IN-4 is a potent inhibitor of hERG with an IC_{50} of 3.0 μM[1].
Syk-IN-4 inhibits SUDHL-4 and T cell proliferation with GI_{50}s of 0.24 and 2.6 μM, respectively[1].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Syk-IN-4 exhibits moderate oral bioavailability (60%) following oral administration (1 mg/kg) in male Hans Wistar rats[1]. Syk-IN-4 exhibits high plasma clearance (151 mL/min/kg) combined with large volumes of distribution (1.0 L/kg respectively) following i.v. administration (0.5 mg/kg) in male Hans Wistar rats[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Neil P Grimster, et al. Optimization of a Series of Potent, Selective and Orally Bioavailable SYK Inhibitors. Bioorg Med Chem Lett. 2020 Jul 24;127433.

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