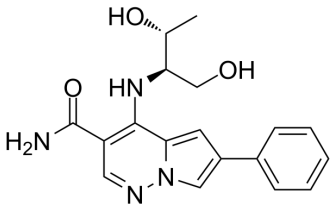
JAK-IN-3

Cat. No.:	HY-111750
CAS No.:	1400876-94-9
Molecular Formula:	$C_{18}H_{20}N_4O_3$
Molecular Weight:	340.38
Target:	JAK
Pathway:	Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (183.62 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9379 mL	14.6895 mL	29.3789 mL
	5 mM	0.5876 mL	2.9379 mL	5.8758 mL
	10 mM	0.2938 mL	1.4689 mL	2.9379 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.11 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

JAK-IN-3 (compound 22) is a potent JAK inhibitor, with IC_{50} values of 3 nM, 5 nM, 34 nM and 70 nM for JAK3, JAK1, TYK2 and JAK2, respectively[1].

IC_{50} & Target				
	JAK3	JAK1	Tyk2	JAK2
	3 nM (IC_{50})	5 nM (IC_{50})	34 nM (IC_{50})	70 nM (IC_{50})

REFERENCES

[1]. Spergel SH, et al. Discovery of a JAK1/3 Inhibitor and Use of a Prodrug To Demonstrate Efficacy in a Model of Rheumatoid Arthritis. ACS Med Chem Lett. 2019 Feb 13;10(3):306-311.

Caution: Product has not been fully validated for medical applications. For research use only.

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