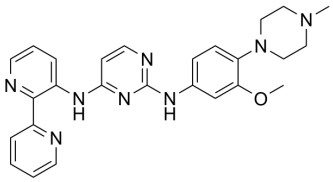
Itacnosertib

Cat. No.:	HY-109179
CAS No.:	1628870-27-8
Molecular Formula:	$C_{26}H_{28}N_8O$
Molecular Weight:	468.55
Target:	JAK; TGF-β Receptor
Pathway:	Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt; TGF-beta/Smad
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 : 12.5 mg/mL (26.68 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Mass / Solvent / Concentration	1 mg	5 mg	10 mg
1 mM	2.1342 mL	10.6712 mL	21.3424 mL
5 mM	0.4268 mL	2.1342 mL	4.2685 mL
10 mM	0.2134 mL	1.0671 mL	2.1342 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: ≥ 1.25 mg/mL (2.67 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.25 mg/mL (2.67 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.25 mg/mL (2.67 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Itacnosertib (TP-0184) is both inhibitor to JAK2, ACVR1 (ALK2) and ALK5 as described in WO2014151871[1].

IC_{50} & Target	JAK2	ACVR1	ALK5

REFERENCES

[1]. Mollard, Alexis; Warner, Steven L.; Flynn, Gary A.; Vankayalapati, Hariprasad; Bearss, David J. Preparation of [(piperazinylphenyl)amino]pyrimidine derivatives as JAK2 and ALK2 inhibitors. WO2014151871 A2

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

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