Itacitinib

Cat. No.: HY-16997

CAS No.: 1334298-90-6

Molecular Formula: $C_{26}H_{23}F_4N_9O$

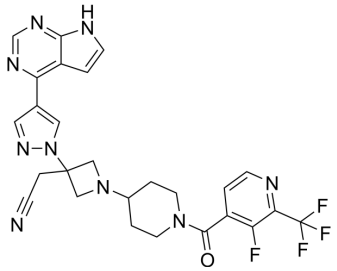
Molecular Weight: 553.51

Target: JAK

Pathway: Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	1 year
	-20°C	6 months



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 30 mg/mL (54.20 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.8067 mL	9.0333 mL	18.0665 mL
5 mM	0.3613 mL	1.8067 mL	3.6133 mL
10 mM	0.1807 mL	0.9033 mL	1.8067 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 (4.52 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.52 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Itacitinib (INCB039110) is an orally active and selective inhibitor of JAK1 with an IC_{50} of 2 nM for human JAK1. Itacitinib shows >20-fold selectivity for JAK1 over JAK2 and >100-fold over JAK3 and TYK2; Itacitinib is used in the research of myelofibrosis[1][2].

IC_{50} & Target

JAK1

In Vitro	Itacitinib (INCB039110) is a potent and selective inhibitor of JAK1, with >20-fold selectivity for JAK1 over JAK2 and >100-fold over JAK3 and TYK2. Itacitinib is used in the research of myelofibrosis[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Autoimmun. 2019 May;99:39-47.
- Leukemia. 2019 Aug;33(8):1964-1977.
- JCI Insight. 2021 Apr 8;6(7):142205.
- EMBO Rep. 2019 Jun;20(6):e47202.
- EMBO Rep. 2019 Jun;20(6):e47202.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Mascarenhas JO, et al. Primary analysis of a phase II open-label trial of INCB039110, a selective JAK1 inhibitor, in patients with myelofibrosis. Haematologica. 2017 Feb;102(2):327-335.

[2]. Alain Lescoat, et al. Combined Anti-Fibrotic and Anti-Inflammatory Properties of JAK-inhibitors on Macrophages in Vitro and in Vivo: Perspectives for Scleroderma-Associated Interstitial Lung Disease. Biochem Pharmacol. 2020 Jun 17;114103.

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