# Izencitinib

Cat. No.:	HY-109148				
CAS No.:	2051918-33-1				
Molecular Formula:	$C_{22}H_{26}N_{8}$				
Molecular Weight:	402.5				
Target:	JAK				
Pathway:	Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt			N	
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 : 50 mg/mL (124.22 mM; Need ultrasonic)						
		Solvent Mass Concentration	1 mg	5 mg	10 mg		
	Preparing Stock Solutions	1 mM	2.4845 mL	12.4224 mL	24.8447 mL		
		5 mM	0.4969 mL	2.4845 mL	4.9689 mL		
		10 mM	0.2484 mL	1.2422 mL	2.4845 mL		
	Please refer to the solubility information to select the appropriate solvent.						
In Vivo	<ol> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (6.21 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.21 mM); Clear solution</li> </ol>						

biological activity					
Description	Izencitinib (TD-1473) is an orally active, non-selective and gut-restricted JAK inhibitor. Izencitinib (TD-1473) can be used in the study for ulcerative colitis <sup>[1]</sup> .				
In Vitro	Izencitinib (TD-1473) inhibits cytokine-evoked STAT phosphorylation in human peripheral blood mononuclear cells (PBMCs) and in a human colonic epithelial cell line (pIC <sub>50</sub> ≥ 6.7) <sup>[1]</sup> . Izencitinib (TD-1473) is a potent JAK1, JAK2, JAK3, and TYK2 inhibitor at the human JAK kinase domains (pKi values of 10.0, 10.0, 8.8, and 9.5, respectively) <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.				
In Vivo	Izencitinib (TD-1473, 1 mg/kg BID) preserves body weight and reduced occult blood scores in a mouse oxazolone colitis				



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### $model^{[1]}$ .

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#### REFERENCES

[1]. Kevin S Currie, et al. Small-molecule agents for the treatment of inflammatory bowel disease. Bioorg Med Chem Lett. 2019 Aug 15;29(16):2034-2041.

[2]. William J Sandborn, et al. Development of Gut-Selective Pan-Janus Kinase Inhibitor TD-1473 for Ulcerative Colitis: A Translational Medicine Programme. J Crohns Colitis. 2020 Sep 16;14(9):1202-1213.

[3]. D. Beattie, et al. TD-1473, a novel, potent, and orally administered, GI-targeted, pan-Janus kinase (JAK) inhibitor. Journal of Crohn's and Colitis, Volume 10, Issue suppl\_1, March 2016, Page S123.

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

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