Zotiraciclib

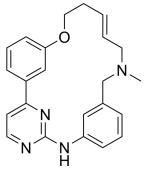|	
Cat. No.:	HY-15163
CAS No.:	1204918-72-8
Molecular Formula:	$C_{23}H_{24}N_4O$
Molecular Weight:	372.46
Target:	JAK; CDK; FLT3
Pathway:	Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt; Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (134.24 mM; Need ultrasonic)			
	Preparing Stock Solutions			
	Solvent Mass / Concentration	**1 mg**	**5 mg**	**10 mg**
	1 mM	2.6849 mL	13.4243 mL	26.8485 mL
	5 mM	0.5370 mL	2.6849 mL	5.3697 mL
	10 mM	0.2685 mL	1.3424 mL	2.6849 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 (6.71 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Zotiraciclib (TG02) is an orally active potent inhibitor of CDK2, JAK2 and FLT3 with IC_{50} values of 13, 73, and 56 nM, respectively. Zotiraciclib can be used for the research of advanced leukemias and multiple myeloma[1][2].

REFERENCES

[1]. William AD, et al. Discovery of kinase spectrum selective macrocycle (16E)-14-methyl-20-oxa-5,7,14,26-tetraazatetracyclo[19.3.1.1(2,6).1(8,12)]heptacosa-1(25),2(26),3,5,8(27),9,11,16,21,23-decaene (SB1317/TG02), a potent inhibitor of cyclin dependent kinases (CDKs), Janus kinase 2 (JAK2), and fms-like tyrosine kinase-3 (FLT3) for the treatment of cancer. J Med Chem. 2012 Jan 12;55(1):169-96.

[2]. Pasha MK, et al. Preclinical metabolism and pharmacokinetics of SB1317 (TG02), a potent CDK/JAK2/FLT3 inhibitor. Drug Metab Lett. 2012 Mar;6(1):33-42.

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

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