Product Data Sheet

Product Name: ZLJ-6
Cat. No.: GC11203

Chemical Properties

Cas. No.	1051931-39-5		
Chemical Name	(5Z)-2-amino-1,5-dihydro-1-methyl-5-[[4-(methylsulfonyl)phenyl]methylene]-4H-imidazol-4-one, monomethanesulfonate		
SMILES	O=S(C1=CC=C(/C=C2C(C)C(N)=NC/2=O)C=C1)(C)=O.CS(=O)(O)=O		
Formula	$C_{12}H_{13}N_3O_3S \cdot CH_3SO_3H$	M.Wt	375.4
Solubility	≤10mg/ml in DMSO;10mg/ml in dimethyl formamide	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	ZLJ-6		

Background

IC50: 0.73, 0.31, and 0.99 μM for COX-1, COX-2, and 5-LO, respectively

ZLJ-6 is a dual inhibitor of COX and 5-lipoxygenase (5-LO).

Cyclooxygenase (COX) is an enzyme that is responsible for formation of prostanoids, such as thromboxane and prostaglandins such as prostacyclin. 5-lipoxygenase (5-LO) is the major source of leukotrienes.

In vitro: ZLJ-6 was identified as a potent inhibitor of cyclooxygenase in human whole blood. It also inhibited the production of thromboxane B(2) and prostaglandin E(2) in calcium ionophore A23187-induced human and rat whole blood, and rat peritoneal leukocytes. ZLJ-6 suppressed the activity of 5-lipoxygenase in the rat basophilic leukemia (RBL-1) cell lysate and in intact cells and reduced the generation of leukotriene B(4) (LTB(4)) in A23187-stimulated human or rat whole blood, and rat peritoneal leukocytes [1].

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In vivo: Orally administered ZLJ-6 demonstrated potent anti-inflammatory activity in the carrageenin-induced paw oedema model in rats and showed analgesic activity in the acetic acid-induced abdominal construction model in mice. No gastrointestinal ulcers were found with the anti-inflammatory dose (30 mg/kg) in normal rats [1].

Clinical trial: So far, no clinical study has been conducted.

Reference:

[1] Li, L. ,Ji, H.,Sheng, L., et al. The anti-inflammatory effects of ZLJ-6, a novel dual cyclooxygenase/5-lipoxygenase inhibitor. European Journal of Pharmacology 607 (1-3), 244-250 (2009).

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