JMS-17-2

Cat. No.: HY-123918

CAS No.: 1380392-05-1

Molecular Formula: $C_{25}H_{26}ClN_3O$

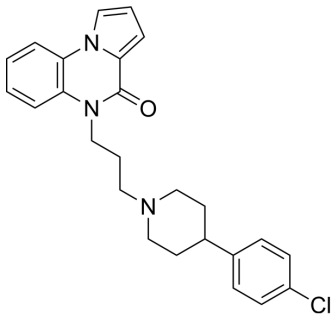
Molecular Weight: 419.95

Target: CX3CR1

Pathway: Immunology/Inflammation

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (59.53 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3812 mL	11.9062 mL	23.8124 mL
	5 mM	0.4762 mL	2.3812 mL	4.7625 mL
	10 mM	0.2381 mL	1.1906 mL	2.3812 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: ≥ 2.08 mg/mL (4.95 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

JMS-17-2 is a potent and selective CX3CR1 antagonist with an IC_{50} of 0.32 nM. JMS-17-2 impairs metastatic seeding and colonization of breast cancer cells[1].

IC_{50} & Target

IC50: 0.32 nM (CX3CR1)[1]

In Vivo

JMS-17-2 (10 mg/kg; aministered i.p.; twice a day for three weeks) causes a dramatic reduction of tumors in both skeleton and visceral organs in SCID mice[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	SCID mice (~25g) with MDA-231 xenograft[1]

Dosage:	10 mg/kg
Administration:	Aministered i.p.; twice a day for three weeks
Result:	Caused a dramatic reduction of tumors in both skeleton and visceral organs.

CUSTOMER VALIDATION

- Nat Commun. 2024 Jan 10;15(1):449.
- Cancer Res. 2022 Sep 14;CAN-22-1199.
- Cancer Lett. 2024 Jan 25:216674.
- J Neuroinflammation. 2023 Mar 21;20(1):81.
- Stem Cells Int. 2023 Feb 20.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Shen F, et al. Novel Small-Molecule CX3CR1 Antagonist Impairs Metastatic Seeding and Colonization of Breast Cancer Cells. Mol Cancer Res. 2016 Jun;14(6):518-27.

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