SB-265610

Cat. No.: HY-50688

CAS No.: 211096-49-0

Molecular Formula: $C_{14}H_9BrN_6O$

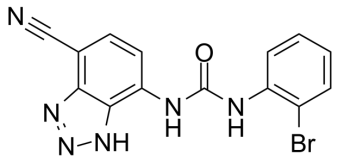
Molecular Weight: 357.16

Target: CXCR

Pathway: GPCR/G Protein; Immunology/Inflammation

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 : 31.25 mg/mL (87.50 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7999 mL	13.9993 mL	27.9987 mL
	5 mM	0.5600 mL	2.7999 mL	5.5997 mL
	10 mM	0.2800 mL	1.3999 mL	2.7999 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 (7.00 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.00 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SB-265610 is a selective, competitive, nonpeptide and allosteric CXCR2 antagonist. SB-265610 blocks rat cytokine-induced neutrophil chemoattractant-1 (CINC-1)-induced calcium mobilization and neutrophil chemotaxis with IC_{50}s of 3.7 nM and 70 nM, respectively[1][2].

IC_{50} & Target

CXCR2

In Vitro

In vitro, SB-265610 antagonizes rat cytokine-induced neutrophil chemoattractant-1 (CINC-1)-induced calcium mobilization, IC_{50} of 3.7 nM, and rat neutrophil chemotaxis in a concentration-dependent manner, IC_{50} of 70 nM. SB-265610 reduces the antiapoptotic effect of CINC-1 to the levels of those untreated with CINC-1[1].

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

In Vivo	SB-265610 (2 mg/kg/day; i.p.; daily; for two weeks) treatment significantly inhibits the recruitment of Gr-1+CD11b+ cells to the mammary adenocarcinoma with Tgfbr2 deletion but not the control tumors[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	MMTV-PyVmT/Tgfbr2^{MGKO} and MMTV-PyVmT/Tgfbr2$^{flox/flox}$ tumors from donor mice[3]
Dosage:	2 mg/kg/day
Administration:	Intraperitoneal injection; daily; for two weeks
Result:	Significantly inhibited the recruitment of Gr-1+CD11b+ cells to the mammary adenocarcinoma.

CUSTOMER VALIDATION

- Oncogene. 2023 Aug 31.

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REFERENCES

[1]. Auten RL, et al. Nonpeptide CXCR2 antagonist prevents neutrophil accumulation in hyperoxia-exposed newborn rats. J Pharmacol Exp Ther. 2001 Oct;299(1):90-5.

[2]. Milatovic S, et al. Impaired healing of nitrogen mustard wounds in CXCR2 null mice. Wound Repair Regen. 2003 May-Jun;11(3):213-9.

[3]. Li Yang, et al. Abrogation of TGF beta signaling in mammary carcinomas recruits Gr-1+CD11b+ myeloid cells that promote metastasis. Cancer Cell. 2008 Jan;13(1):23-35.

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