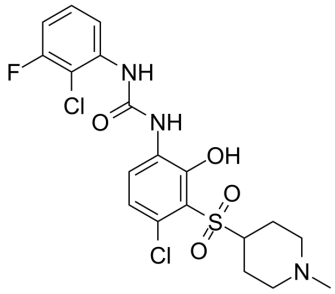
CXCR2-IN-1

Cat. No.:	HY-101022
CAS No.:	1873376-49-8
Molecular Formula:	$C_{19}H_{20}Cl_2FN_3O_4S$
Molecular Weight:	476.35
Target:	CXCR
Pathway:	GPCR/G Protein; Immunology/Inflammation
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 5.4 mg/mL (11.34 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0993 mL	10.4965 mL	20.9930 mL
	5 mM	0.4199 mL	2.0993 mL	4.1986 mL
	10 mM	0.2099 mL	1.0496 mL	2.0993 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

CXCR2-IN-1 is a central nervous system penetrant CXCR2 antagonist with a pIC_{50} of 9.3.

IC_{50} & Target

CXCR2
9.3 (pIC_{50})

In Vitro

CXCR2 plays an important role in the activation and recruitment of neutrophils to sites of inflammation. CXCR2-IN-1 (compound 22) shows favorable central nervous system penetration property (Br/Bl>0.45)[1].

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

In Vivo

CXCR2-IN-1 shows efficacy in a cuprizone-induced demyelination model through oral administration, providing evidence to support CXCR2 to be a potential therapeutic target to treat demyelinating diseases such as multiple sclerosis[1].

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

PROTOCOL

Animal Administration [1]	Mice: Mice are fed with cuprizone for 5 weeks to cause demyelinating lesions in the CNS and then orally administrated with CXCR2-IN-1 for 9 consecutive days at doses of 30 and 100 mg/kg twice daily[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Int Immunopharmacol. 2019 Nov;76:105877
- J Cell Mol Med. 2020 Sep;24(18):10604-10614.

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REFERENCES

[1]. Xu H, et al. Discovery of CNS Penetrant CXCR2 Antagonists for the Potential Treatment of CNS Demyelinating Disorders. ACS Med Chem Lett. 2016 Feb 8;7(4):397-402.

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