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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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CXCL-CXCR1/2-IN-1

Cat. No.: HY-163475

CAS No.: 2415653-55-1

Molecular Formula: $C_{14}H_8Cl_2N_4O_3S$

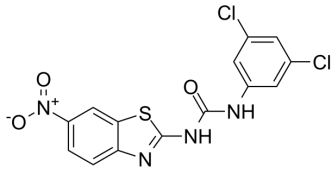
Molecular Weight: 383.21

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 : 4.17 mg/mL (10.88 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6095 mL	13.0477 mL	26.0954 mL
	5 mM	0.5219 mL	2.6095 mL	5.2191 mL
	10 mM	0.2610 mL	1.3048 mL	2.6095 mL

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

BIOLOGICAL ACTIVITY

Description

CXCL-CXCR1/2-IN-1 is an orally active ELR$^+$CXCL-CXCR1/2 pathway inhibitor with an EC_{50} of 42.7 nM for CXCR2[1]. CXCL-CXCR1/2-IN-1 shows anticancer and antiangiogenic effects[1].

In Vitro

In renal cell carcinoma (RCC) cell lines (A498, RCC4, 786, and Sunitinib-resistant RCC cell line 786-R) and neck squamous cell carcinoma (HNSCC) cell lines (CAL33, CAL27, Cisplatin- and radiotherapy-resistant cell lines CAL33RR and CAL27RR), CXCL-CXCR1/2-IN-1 (compound 10) shows IC_{50} values of 2 μM, 2 μM, 2.5 μM, 2 μM, 3 μM, 4 μM, 4 μM, 2.5 μM, and 2.5 μM against A498, RCC4, 786, 786-R, CAL33, CAL27, CAL33RR, and CAL27RR, respectively[1].

CXCL-CXCR1/2-IN-1 inhibits the migration of A498 cancer cells in vitro[1].

CXCL-CXCR1/2-IN-1 (1-2.5 μM; 24-48 h) shows a reduction in the phosphorylation of ERK and AKT in A498 cells. CXCL-CXCR1/2-IN-1 also exhibits the capability to inhibit the secretion of CXCL1, CXCL5, and CXCL8, which are representative proangiogenic ELR$^+$CXCL cytokines[1].

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

Western Blot Analysis[1]

Cell Line:	A498 cells

Concentration:	2.5 μM
Incubation Time:	24 or 48 h
Result:	Showed a reduction in the phosphorylation of ERK and AKT.

RT-PCR[1]

Cell Line:	A498 cells
Concentration:	1 or 2.5 μM
Incubation Time:	48 h
Result:	Inhibited the levels of CXCL1, CXCL5, CXCL8, and VEGFA mRNA.

In Vivo

CXCL-CXCR1/2-IN-1 (1 μM; 48 h) reduces metastasis area in zebrafish embryos injected with A498 cells[1].
CXCL-CXCR1/2-IN-1 (100 mg/kg; oral gavage; twice a day; for 28 days) inhibits tumor growth in mice[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female NOD SCID mice injected with 786 RCC cells[1]
Dosage:	100 mg/kg
Administration:	Oral gavage; twice a day; for 28 days
Result:	Exhibited remarkable results, with a tumor growth inhibition rate of 87%.

REFERENCES

[1]. Oleksandr Grytsai, et al. A Potent Solution for Tumor Growth and Angiogenesis Suppression via an ELR+CXCL-CXCR1/2 Pathway Inhibitor. ACS Med. Chem. Lett. April 3, 2024.

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