Data Sheet (Cat.No.TP1364)

TargetMol
A DRUG SCREENING EXPERT

ALX 40-4C

Chemical Properties

CAS No.:	143413-49-4
Formula:	C56H113N37O10
Molecular Weight:	1464.74
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	ALX40-4C is a small peptide inhibitor of the chemokine receptor CXCR4 that can inhibit X4 strains of HIV-1.
Targets(IC_{50})	SDF-1-CXCR4: None
In vitro	ALX 40-4C is a small peptide inhibitor of the chemokine receptor CXCR4, interacts with the second extracellular loop of CXCR4 and inhibits infection exclusively by blocking direct virus-CXCR4 interactions[1]. ALX 40-4C shows potent anti HIV-1 effect, with EC50s of 0.34 ± 0.04 μg/mL, 0.37 ± 0.01 μg/mL for HIV-1 NL4-3, NC10, and 0.18 ± 0.11 μg/mL, 0.06 ± 0.02 μg/mL for HIV-1 HXB2, HC43, respectively, and with a CC50 (50% cytotoxic concentration) of 21 μg/mL. ALX 40-4C also exhibits potent activity against env-recombint HIV, with EC50s of 0.38 ± 0.01 μg/mL, 0.40 ± 0.0 μg/mL for HIV-1 NL4-3 env, NC10, and 1.34 ± 0.06 μg/mL, 1.02 ± 0.29 μg/mL for HIV-1 HXB2 env, HC43, and a CC50 of 21 μg/mL[2]. ALX 40-4C binds to APJ with an IC50 of 2.9 μM. ALX 40-4C inhibits HIV-1 gp120/APJ-mediated cell membrane fusion, with an IC50s of 3.41 μM and 3.1 μM for IIIB isolate and 89.6 isolate, respectively[3].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.683 mL	3.414 mL	6.827 mL
5 mM	0.137 mL	0.683 mL	1.365 mL
10 mM	0.068 mL	0.341 mL	0.683 mL
50 mM	0.014 mL	0.068 mL	0.137 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Doranz BJ, et al. Safe use of the CXCR4 inhibitor ALX40-4C in humans. AIDS Res Hum Retroviruses. 2001 Apr 10;17(6):475-86.

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