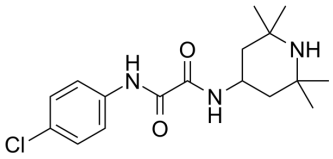
NBD-556

Cat. No.:	HY-76648
CAS No.:	333353-44-9
Molecular Formula:	$C_{17}H_{24}ClN_3O_2$
Molecular Weight:	337.84
Target:	HIV
Pathway:	Anti-infection

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 : 33.33 mg/mL (98.66 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9600 mL	14.7999 mL	29.5998 mL
	5 mM	0.5920 mL	2.9600 mL	5.9200 mL
	10 mM	0.2960 mL	1.4800 mL	2.9600 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NBD-556, a CD4 mimetic, is a potent HIV-1 entry inhibitor that blocks the gp120-CD4 interaction. NBD-556 shows potent cell fusion and virus-cell fusion inhibitory activity at low micromolar levels[1][2].

In Vitro

NBD-556 (1-100 μM) inhibits HIV-1 envelope-mediated virus-cell and cell-cell fusion[1].
NBD-556 inhibits the infection of MT-2 cells by laboratory-adapted HIV-1 IIIB, MN, and V32 strains, with IC_{50}s of 6.5, 15.9, and 5.3 μM, respectively[1].
NBD-556 (1-100 μM) inhibits the CD4-dependent virus in a dose-dependent manner with an IC_{50} of 22.6 μM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Schon A, et al. Thermodynamics of binding of a low-molecular-weight CD4 mimetic to HIV-1 gp120. Biochemistry. 2006 Sep 12;45(36):10973-10980.

[2]. Zhao Q, Ma L, Jiang S, Lu H, Liu S, He Y, Strick N, Neamati N, Debnath AK. Identification of N-phenyl-N'-(2,2,6,6-tetramethyl-piperidin-4-yl)-oxalamides as a new class of HIV-1 entry inhibitors that prevent gp120 binding to CD4. Virology. 2005 Sep 1;339

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