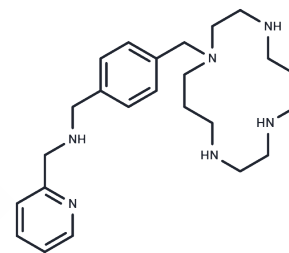


AMD 3465

Chemical Properties

CAS No. : 185991-24-6
 Formula: C₂₄H₃₈N₆
 Molecular Weight: 410.60
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	AMD 3465 also potently inhibits the replication of X4 HIV strains (IC ₅₀ : 1-10 nM). However, it has no effect on CCR5-using (R5) viruses. AMD 3465 (GENZ-644494) is a potent antagonist of CXCR4, inhibits binding of 12G5 mAb and CXCL12AF647 to CXCR4, with IC ₅₀ s of 0.75 nM and 18 nM in SupT1 cells.
Targets(IC ₅₀)	HIV Protease,CXCR
In vitro	AMD 3465 is a potent CXCR4 antagonist, inhibiting the binding of 12G5 mAb and CXCL12AF647 to CXCR4 with IC ₅₀ values of 0.75 nM and 18 nM in SupT1 cells. It is cytotoxic to X4 HIV-1 strains IIIB, NL4.3, RF, and HE with IC ₅₀ values of 6-12 nM, and it inhibits CXCL-12-induced growth in U87 and Daoy cells. AMD 3465 treatment stimulates Erk1/2 phosphorylation in U87 and Daoy cells[2], and at 50 nM, it completely blocks CXCL12-induced calcium mobilization (IC ₅₀ : 17 nM), while showing no effect on CCR5 ligand-induced calcium fluxes in U87.CD4.CCR5 cells. It also potently inhibits X4 HIV strains (IC ₅₀ : 1-10 nM), but has no effect on CCR5-using (R5) viruses, with an IC ₅₀ of 12.3 nM for suppressing HIV-2 strains ROD and EHO[1].
In vivo	AMD 3465, administered subcutaneously at a dosage of 2.5 mg/kg/day for five weeks, significantly inhibits the growth of U87 glioblastoma multiforme (GBM) and Daoy xenograft tumors.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4355 mL	12.1773 mL	24.3546 mL
5 mM	0.4871 mL	2.4355 mL	4.8709 mL
10 mM	0.2435 mL	1.2177 mL	2.4355 mL
50 mM	0.0487 mL	0.2435 mL	0.4871 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Hatse S, et al. AMD3465, a monomacrocyclic CXCR4 antagonist and potent HIV entry inhibitor. *Biochem Pharmacol.* 2005 Sep 1;70(5):752-61.

Yang L, et al. Blocking CXCR4-mediated cyclic AMP suppression inhibits brain tumor growth in vivo. *Cancer Res.* 2007 Jan 15;67(2):651-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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