

Plerixafor

Catalog No: tcsc0451



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

110078-46-1

Formula:

$C_{28}H_{54}N_8$

Pathway:

GPCR/G Protein;Immunology/Inflammation

Target:

CXCR;CXCR

Purity / Grade:

>98%

Solubility:

Ethanol : ≥ 166.66 mg/mL (331.48 mM)

Alternative Names:

AMD 3100;AMD-3329;JM3100

Observed Molecular Weight:

502.78

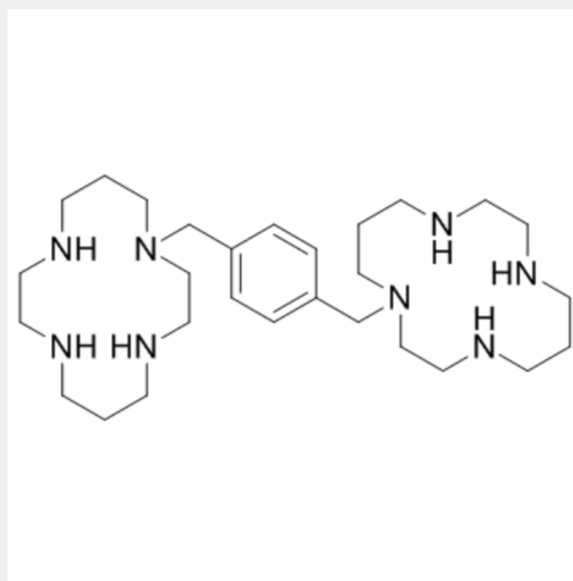
Product Description

Plerixafor is a selective **CXCR4** antagonist with an **IC₅₀** of 44 nM.

IC50 & Target: IC50: 44 nM (CXCR4)^[1]

In Vitro: The CXCR4 inhibitor Plerixafor (AMD3100) is a potent inhibitor of CXCL12-mediated chemotaxis (IC₅₀, 5.7 nM) with a potency slightly better than its affinity for CXCR4. Treating the cells with CCX771 or CXCL11 has no effect on CXCL12-mediated MOLT-4 or U937 TEM. In contrast, 10 μM Plerixafor inhibits CXCL12-mediated TEM in both cells lines^[1]. Plerixafor (10 μM)-treated cells show a moderate reduction in cell proliferation compared to CXCL12-stimulated cells, which do not reach statistical significance [2].

In Vivo: Plerixafor (2 mg/kg) administration to UUO mice exacerbates renal interstitial T cell infiltration, resulting in increased production of the pro-inflammatory cytokines IL-6 and IFN-γ and decreased expression of the anti-inflammatory cytokine IL-10^[3]. Both perivascular and interstitial fibrosis are significantly reduced by the CXCR4 antagonist, Plerixafor (AMD3100) at 8 weeks^[4]. LD50, mouse, SC: 16.3 mg/kg; LD50, rat, SC: >50 mg/kg; LD50, mouse and rat, IV injection: 5.2 mg/kg.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!