

# 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:** 

## Solubility: Ethanol : $\geq$ 166.66 mg/mL (331.48 mM)

**Alternative Names:** 

AMD 3100;AMD-3329;JM3100

#### **Observed Molecular Weight:**

502.78

## **Product Description**

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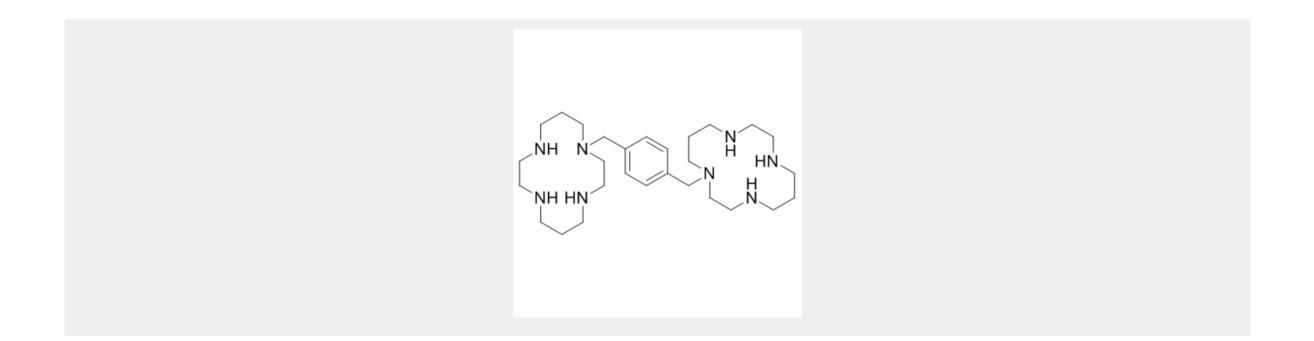


Plerixafor is a selective **CXCR4** antagonist with an **IC**<sub>50</sub> of 44 nM.

IC50 & Target: IC50: 44 nM (CXCR4)<sup>[1]</sup>

*In Vitro:* The CXCR4 inhibitor Plerixafor (AMD3100) is a potent inhibitor of CXCL12-mediated chemotaxis ( $IC_{50}$ , 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  $\mu$ M Plerixafor inhibits CXCL12-mediated TEM in both cells lines<sup>[1]</sup>. Plerixafor (10  $\mu$ M)-treated cells show a moderate reduction in cell proliferation compared to CXCL12-stimulated cells, which do not reach statistical significance <sup>[2]</sup>.

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- $\gamma$  and decreased expression of the anti-inflammatory cytokine IL-10<sup>[3]</sup>. Both perivascular and interstitial fibrosis are significantly reduced by the CXCR4 antagonist, Plerixafor (AMD3100) at 8 weeks<sup>[4]</sup>. LD50, mouse, SC: 16.3 mg/kg; LD50, rat, SC: >50 mg/kg; LD50, mouse and rat, IV injection: 5.2 mg/kg.



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