

# Plerixafor (octahydrochloride)

Catalog No: tcsc0321



## Available Sizes

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

155148-31-5

**Formula:**

$C_{28}H_{62}Cl_8N_8$

**Pathway:**

GPCR/G Protein;Immunology/Inflammation

**Target:**

CXCR;CXCR

**Purity / Grade:**

>98%

**Solubility:**

H<sub>2</sub>O : ≥ 42 mg/mL (52.87 mM)

**Alternative Names:**

AMD3100 octahydrochloride;JM3100 octahydrochloride;SID791 octahydrochloride

**Observed Molecular Weight:**

794.47

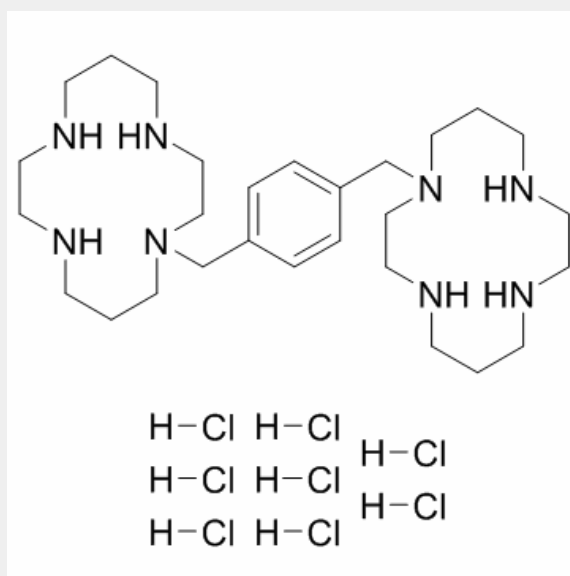
## Product Description

Plerixafor octahydrochloride is a selective **CXCR4** antagonist with **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<sub>50</sub>, 5.7 nM) with a potency slightly better than its affinity for CXCR4. Treating the cells with 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<sup>[1]</sup>. Plerixafor (10 μM)-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-γ 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.



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