

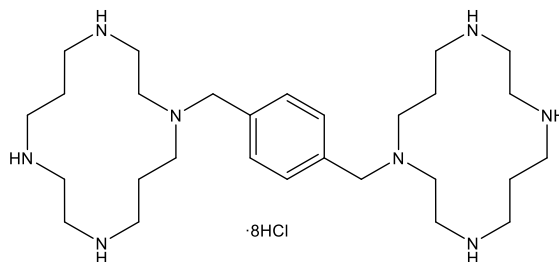
**Catalog #10-2864**

**Plerixafor**

CAS# 155148-31-5

1,1'-[1,4-Phenylenebis-(methylene)]-bis(1,4,8,11-tetraazacyclotetradecane) octahydrochloride; AMD3100

Lot # FBS2093



Plerixafor is a highly selective CXCR4 antagonist ( $IC_{50} = 20-130$  nM).<sup>1,2</sup> Originally investigated as an HIV replication inhibitor.<sup>3</sup> Plerixafor has been investigated for the treatment autoimmune diseases and various cancers.<sup>4</sup> Clinically useful for the mobilization of hematopoietic stem cells in the treatment of blood cancers.

- 1) Donzella, *et al.* (1998), *AMD3100, A Small Molecule Inhibitor of HIV-1 Entry via the CXCR4 Co-Receptor*, *Nat. Med.* **4** 72
- 2) Hatse *et al.* (2002), *Chemokine Receptor Inhibition by AMD3100 Is Strictly Confined to CXCR4*; *FEBS Lett.* **527** 255
- 3) Bridger *et al.* (1995), *Synthesis and Structure-Activity Relationships of Phenylenebis(methylene)-linked Bis-Tetraazamacrocycles That Inhibit HIV Replication. Effects of Macrocyclic Ring Size and Substituents on the aromatic Linker*; *J. Med. Chem.* **38** 366
- 4) Wang *et al.* (2020), *CXCR4 antagonist AMD3100 (plerixafor): from an impurity to a therapeutic agent*; *Pharmacol. Res.* **159** 105010

**PHYSICAL DATA**

Molecular Weight:	794.48
Molecular Formula:	C <sub>28</sub> H <sub>54</sub> N <sub>8</sub> ·8HCl
Purity:	>98% (HPLC)
	NMR: (Conforms)
Solubility:	Water (>25 mg/mL)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at room temperature for up to 1 year from the date of purchase. Solutions of DMSO or ethanol may be stored at -20°C for up to 2 months.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**

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