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DATASHEET

AMD 3100 octahydrochloride

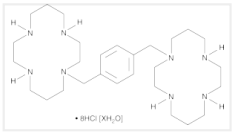
Product overview

Name	AMD 3100 octahydrochloride
Cat No	HB2739
Description	Potent, selective CXCR4 antagonist. Mobilizes hematopoietic stem cells.
Biological description	Potent and selective CXCR4 antagonist (IC_{50} values are 0.79 and 0.18 at CXCR4 and CCR2 respectively). Blocks the route of HIV entry into T-cells. Shows potent anti-HIV activity *in vitro* and *in vivo*. Also mobilizes hematopoietic stem cells.
Alternative names	Plerixafor | JM3100
Biological action	Antagonist

Solubility & Handling

Storage instructions	-20°C (desiccate)
Solubility overview	Soluble in water (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	1,1'-[1,4-Phenylene*bis*-(methylene)]- *bis*-(1,4,8,11-tetraazacyclotetradecane) octahydrochloride
Molecular Weight	794.48
Chemical structure	
Molecular Formula	$C_{28}H_{54}N_8.8HCl$
CAS Number	155148-31-5
PubChem identifier	65014
SMILES	C1(CN3CCCNCCNCCCNCC3)=CC=C(CN2CCCNCCNCCCNCC2)C=C1.Cl.Cl.Cl.Cl.Cl.Cl.Cl.Cl
InChiKey	UEUPDYPUTTUXLJ-UHFFFAOYSA-N

References

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.

Bridger et al (1995) J Med Chem 38(2)
PubMedID 7830280

Characterization of the molecular pharmacology of AMD3100: a specific antagonist of the G-protein coupled chemokine receptor, CXCR4.

Fricker et al (2006) Biochem Pharmacol 72(5)
PubMedID 16815309

Effective mobilization of hematopoietic progenitor cells in G-CSF mobilization defective CD26-/- mice through AMD3100-induced disruption of the CXCL12-CXCR4 axis.

Paganessi (2011) Exp Hematol 39(3)
PubMedID 21168468