

## Product Information

### AMD3100 Octahydrochloride

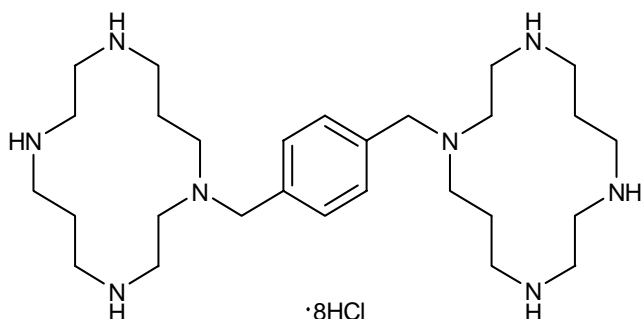
Product Number **A 5602**

Storage Temperature  $-20\text{ }^{\circ}\text{C}$

Cas #: 155148-31-5

Synonym: JM3100, SID791

Chemical Name: 1,1'-[1,4-phenylenebis(methylene)]bis-1,4,8,11-tetraazacyclotetradecane octahydrochloride



### Product Description

Molecular Formula:  $\text{C}_{28}\text{H}_{62}\text{N}_8\text{Cl}_8$

Molecular Weight: 794.5 (anhydrous)

AMD3100 is a highly specific chemokine receptor CXCR4 antagonist.<sup>1</sup> It has been implicated in inflammation,<sup>2,3</sup> cancer,<sup>4</sup> and HIV infection.<sup>5-7</sup>

AMD3100 may enhance the mobilization of peripheral blood stem cells for transplantation in cancer patients, playing a key role in regulation of trafficking and homing of CD34+ stem cells in the bone marrow.

### Reagent

AMD3100 Octahydrochloride is supplied as a white solid.

Purity: >97% by MS and NMR. No impurities detected.

### Precautions and Disclaimer

Consult the MSDS for information regarding hazardous and safe handling practices.

### Preparation Instructions

The product is soluble in water at 22 mg/ml.

### Storage/Stability

Store the product at  $-20\text{ }^{\circ}\text{C}$ .

### References

1. Hatse, S., et al., Chemokine receptor inhibition by AMD3100 is strictly confined to CXCR4. *FEBS Lett.*, **527**, 255-262 (2002).
2. Lukacs, N.W., et al., AMD3100, a CXCR4 antagonist, attenuates allergic lung inflammation and airway hyperreactivity. *Am. J. Pathol.*, **160**, 1353-1360 (2002).
3. Matthys, P., et al., AMD3100, a potent and specific antagonist of the stromal cell-derived factor-1 chemokine receptor CXCR4, inhibits autoimmune joint inflammation in IFN- $\gamma$  receptor-deficient mice. *J. Immunol.*, **167**, 4686-4692 (2001).
4. Scotton, C.J., et al., Multiple actions of the chemokine CXCL12 on epithelial tumor cells in human ovarian cancer. *Cancer Res.*, **62**, 5930-5938 (2002).
5. De Clercq, E., New developments in anti-HIV chemotherapy. *Biochem. Biophys. Acta.*, **1587**, 258-275 (2002).
6. Gerlach, L.O., et al., Molecular interaction of cyclam and bicyclam non-peptide antagonists with the CXCR4 chemokine receptor. *J. Biol. Chem.*, **276**, 14153-14160 (2001).
7. Donzella, G.A., et al., AMD3100, a small molecule inhibitor of HIV-1 entry via the CXCR4 co-receptor. **4**, 72-77 (1998).

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