



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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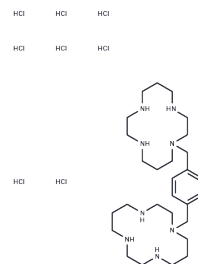
[www.szabo-scandic.com](http://www.szabo-scandic.com)

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## Plerixafor octahydrochloride

## Chemical Properties

|                   |                                                                |
|-------------------|----------------------------------------------------------------|
| CAS No. :         | 155148-31-5                                                    |
| Formula:          | C <sub>28</sub> H <sub>62</sub> Cl <sub>8</sub> N <sub>8</sub> |
| Molecular Weight: | 794.46                                                         |
| Appearance:       | no data available                                              |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year       |



## Biological Description

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description   | Plerixafor octahydrochloride (JM3100 octahydrochloride) blocks the binding of stromal cell-derived factor (SDF-1alpha) to the cellular receptor CXCR4, resulting in hematopoietic stem cell (HSC) release from bone marrow and HSC movement into the peripheral circulation. Plerixafor is a bicyclam with hematopoietic stem cell-mobilizing activity.                                                                                                                                                                                                                                          |
| Targets(IC50) | Virus Protease,HIV Protease,CXCR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| In vitro      | AMD 3100 can inhibit the replication of low-passage clinical HIV-1 isolates (K31, D370, K6/-2, HEM, and JRCSF) in primary T4 lymphocytes (EC50s: 0.16-1.5 ng/ml; EC90s: 0.36-4.7 ng/ml). In primary monocytes, AMD 3100 was active against HIV-1 (K31 and SF-162) at EC50s of 0.28-7.2 ng/mL and EC90s of 0.68-12 ng/mL.                                                                                                                                                                                                                                                                         |
| In vivo       | Serum drug levels in rabbits given AMD 3100 (10 mg/kg) by the subcutaneous route were determined by a bioassay based on the EC50 of the compound required to inhibit HIV-1 cytopathicity in MT-4 cells.                                                                                                                                                                                                                                                                                                                                                                                          |
| Cell Research | Plerixafor is dissolved in DMSO and then diluted with appropriate medium[2]. U87 mg cells are seeded in 96-well plates at the density of 6×10 <sup>3</sup> cells in 200 µL/well and treated with CXCL12, Plerixafor or with peptide R, as described in the previous "Treatments" section. MTT (5 µg/mL) is added at each time point (24, 48, 72 h) during the final 2 h of treatment. After removing cell medium, 100 µL DMSO are added and optical densities measured at 595 nm with a LT-4000MS Microplate Reader. Measurements are made in triplicates from three independent experiments[2]. |

## Solubility Information

|            |                                                                                                                                                           |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Solubility | DMSO: Insoluble,<br>H <sub>2</sub> O: 119.17 mg/mL (150 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|

## A DRUG SCREENING EXPERT

### Preparing Stock Solutions

|       | 1mg       | 5mg       | 10mg       |
|-------|-----------|-----------|------------|
| 1 mM  | 1.2587 mL | 6.2936 mL | 12.5872 mL |
| 5 mM  | 0.2517 mL | 1.2587 mL | 2.5174 mL  |
| 10 mM | 0.1259 mL | 0.6294 mL | 1.2587 mL  |
| 50 mM | 0.0252 mL | 0.1259 mL | 0.2517 mL  |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

### Reference

Li Y, Niu M, Zhao A, et al. CXCL12 is involved in  $\alpha$ -synuclein-triggered neuroinflammation of Parkinson's disease. Journal of Neuroinflammation. 2019, 16(1): 1-14

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