

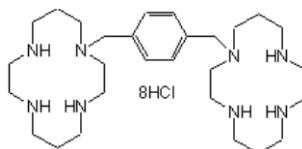
Centre For AIDS Reagents

Data Sheet

NAME: AMD 3100

REPOSITORY REFERENCE: ARP974

DESCRIPTION: CXCR4 Antagonist (C₂₈H₅₄ N₈ • 8HCl)



CHARACTERISTICS: A symmetrical bicyclam compound that antagonizes CXCL12 (SDF1) binding to CXCR4 (IC₅₀ = 108 and 245 nM using rat and human CXCR4, respectively) and inhibits SDF1-induced Ca²⁺ flux (by 100% at 100 ng/ml in SUP-T1 2+ and THP-1 cultures) as well as CXCR4-, but not CCR5-, mediated HIV infection (IC₅₀ = 200 nM), while enhancing the binding of SDF1 to CXCR7 (by ~60% at 1 mM with CXCR7-expressing HEK293T cells) and SDF1-induced β-arrestin recruitment to CXCR7 (EC₅₀ = 6.48 and 11.8 nM, in the presence and absence of 10 μM AMD3100, respectively). Administration AMD3100 via intravenous infusion is also reported to result in hematopoietic stem cell mobilization in humans, dogs, and mice. Exhibits no inhibitory effects against chemokine-induced signaling in vivo via CXCR1/2/3 or CCR1/2/3/4/5/6/7/8/9.

USES AND APPLICATIONS: *In vitro* cell based assays.

PRESENTATION: Off -white solid mass (5mg)
Packaged under inert gas

MOLAR MASS: 794.5

TOXICITY:	Standard handling
PURITY:	=98% by HPLC
SOLUBILITY:	Water (10mg/ml)
STORAGE:	+2°C to +8°C Protect from light Hygroscopic Following reconstitution, aliquot and freeze (-20°C). Stock solutions are stable for up to 6 months at -20°C.
SOURCE:	Merck Chemicals, UK
REFERENCE:	Kalatskaya, I., et al. 2009. <i>Mol. Pharmacol.</i> 77 , 1240. Pitchford, S.C., et al. 2009. <i>Cell Stem Cell</i> 4 , 62. De Clercq, E. 2009. <i>Biochem. Pharmacol.</i> , 1655. Thoma, G., et al. 2008. <i>J. Med. Chem.</i> 51 , 7915. De Clercq, E. 2000. <i>Mol. Pharmacol.</i> 57 , 833.
ACKNOWLEDGEMENT:	Publications should acknowledge the donor of the reagent and the Programme EVA Centre for AIDS Reagents. Suggested wording can be found on our website at http://www.nibsc.ac.uk/spotlight/aidsreagent/index.html in the “Acknowledgements” section. Please also ensure that you send us a copy of any papers resulting from work using reagents acquired through CFAR (this can be Electronically or as a paper copy)