NIH AIDS Reagent Program
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DATA SHEET

Reagent:	bicyclam JM-2987 (hydrobromide salt of AMD-3100)
Catalog Number:	8128
Lot Number:	86-38B
Release Category:	E
Provided:	20 mg
Empirical Formula:	$C_{30}H_{70}Br_8N_8O_4$
Molecular Weight:	1246.15
Purity:	>98% (by HPLC)
Solubility:	DMSO; also moderately soluble in water. Target a stock concentration that meets your needs. If too high a concentration is picked and it's not soluble in DMSO at that concentration, just add more DMSO.
Mechanical Action:	AMD-3100, a bicyclam, inhibits the entry of HIV-1 into CD4+ T cells via selective blockade of the chemokine CXCR-4 receptor.
Recommended Storage:	Room temperature Can be stored at -20°C upon reconstitution
Contributor:	NIAID, DAIDS

References:

Hendrix CW, Flexner C, MacFarland RT, Giandomenico C, Fuchs EJ, Redpath E, Bridger G, Henson GW. Pharmacokinetics and safety of AMD-3100, a novel antagonist of the CXCR-4 chemokine receptor, in human volunteers. *Antimicrob Agents Chemother.* **44**:1667-1673, 2000.

Bridger GJ, Skerlj RT, Thornton D, Padmanabhan S, Martellucci SA, Henson GW, Abrams MJ, Yamamoto N, De Vreese K, Pauwels R, et al. 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**:366-378, 1995 (this article details the synthesis of JM-2987, but is called compound 19a in the article).

De Clercq E, Yamamoto N, Pauwels R, Balzarini J, Witvrouw M, De Vreese K, Debyser Z, Rosenwirth B, Peichl P, Datema R, et al. Highly potent and selective inhibition of human immunodeficiency virus by the bicyclam derivative JM3100. *Antimicrob Agents Chemother.* **38**:668-674, 1994 (this article mentions both JM-2987 and JM-3100 by these names and the fact that one's an HBr salt and the other an HCl salt of a parent compound that has no JM designation).

NOTE:

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, Division of AIDS, NIAID, NIH: bicyclam JM-2987 (hydrobromide salt of AMD-3100) from NIAID, DAIDS (cat# 8128)." Also include the references cited above in any publications.

Recipient agrees that the reagent (Bicyclam JM-2987 (hydrobromide salt of AMD-3100)) use is permitted only as a standard for in vitro and/or studies in animals for inhibition of HIV replication.

Scientists at non-profit institutions must submit an addendum to the registration agreement (available at www.aidsreagent.org) prior to receiving this reagent. Non-profit recipient agrees that the bicyclam JM-2987, donated by AnorMED, Inc to the NIH AIDS Reagent Program will only be used for in vitro and/or animal studies of HIV replication.

Required Form ACF2380.pdf

Last Updated July 24, 2018