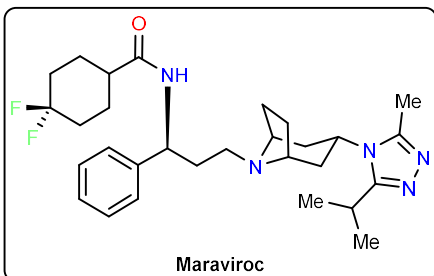


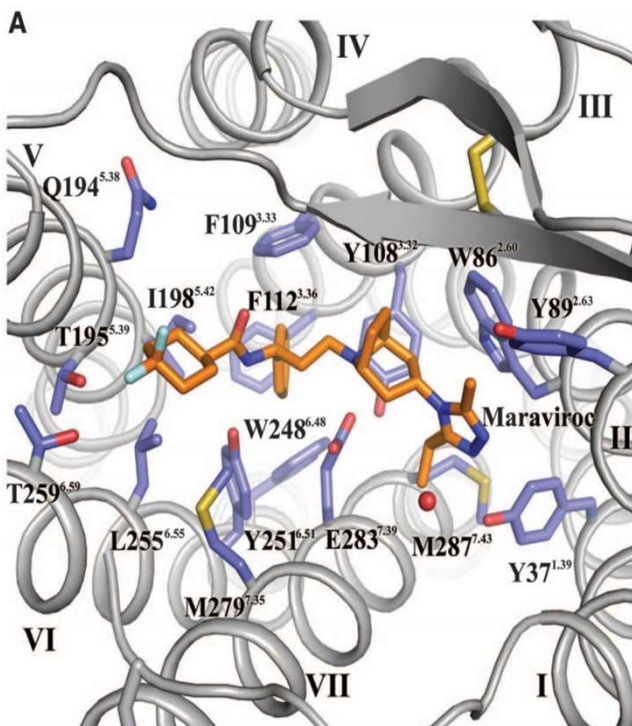
Introduction



- Developed by Pfizer, Maraviroc (Selzentry/Celsentri) is a CCR5 receptor antagonist
- Received FDA approval in 2007
- Prevents viral entry into a healthy cell, halting HIV growth
- Often used in combination with other antiretroviral agents, and those who demonstrate resistance to treatment.

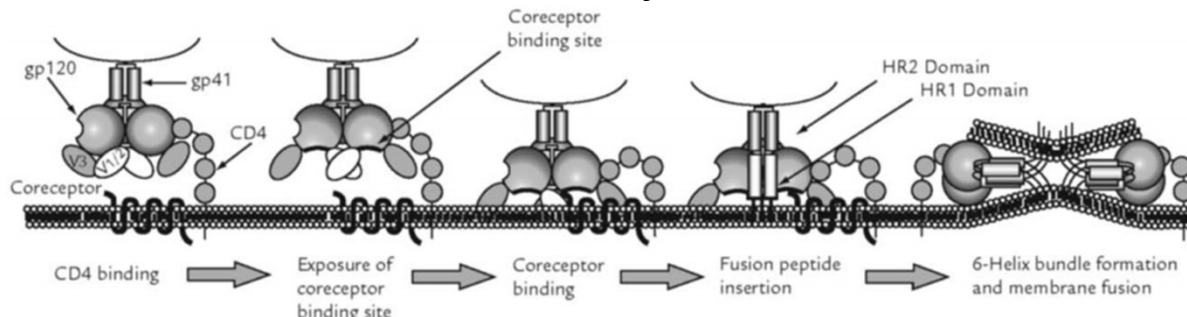
Stupple, P. A. *J. Med. Chem.* **2011**, *54*, 67-77. <https://doi.org/10.1021/jm100978n>; Perry, C. M. *Drugs* **2010**, *70*, 1189-1213. <https://doi.org/10.2165/11203940-000000000-00000>

CCR5 Ligand-Binding Pocket



Tan, Q. *Science* **2013**, *341*, 1387-1389.
<https://doi.org/10.1126/science.1241475>

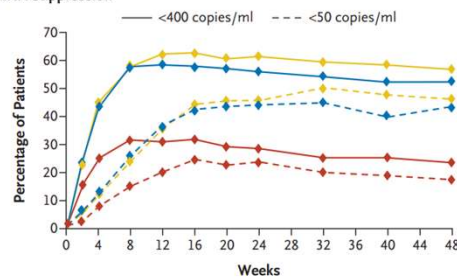
HIV-1/CD4 Cell Fusion Cascade: Cell entry



Liberman-Blum, S. S. *Clin. Ther.* **2008**, *30*, 1228-1250. [https://doi.org/10.1016/s0149-2918\(08\)80048-3](https://doi.org/10.1016/s0149-2918(08)80048-3)

Clinical Data

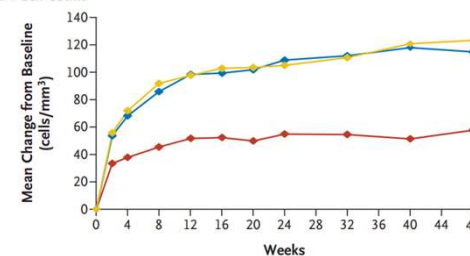
A HIV-1 RNA Suppression



No. at Risk	0	4	8	12	16	20	24	28	32	36	40	44	48
Placebo	209	205	193	172	127	107	98	84	78	72			
MVC once daily	414	399	390	368	332	313	296	282	271	256			
MVC twice daily	423	402	398	379	341	318	314	297	286	281			

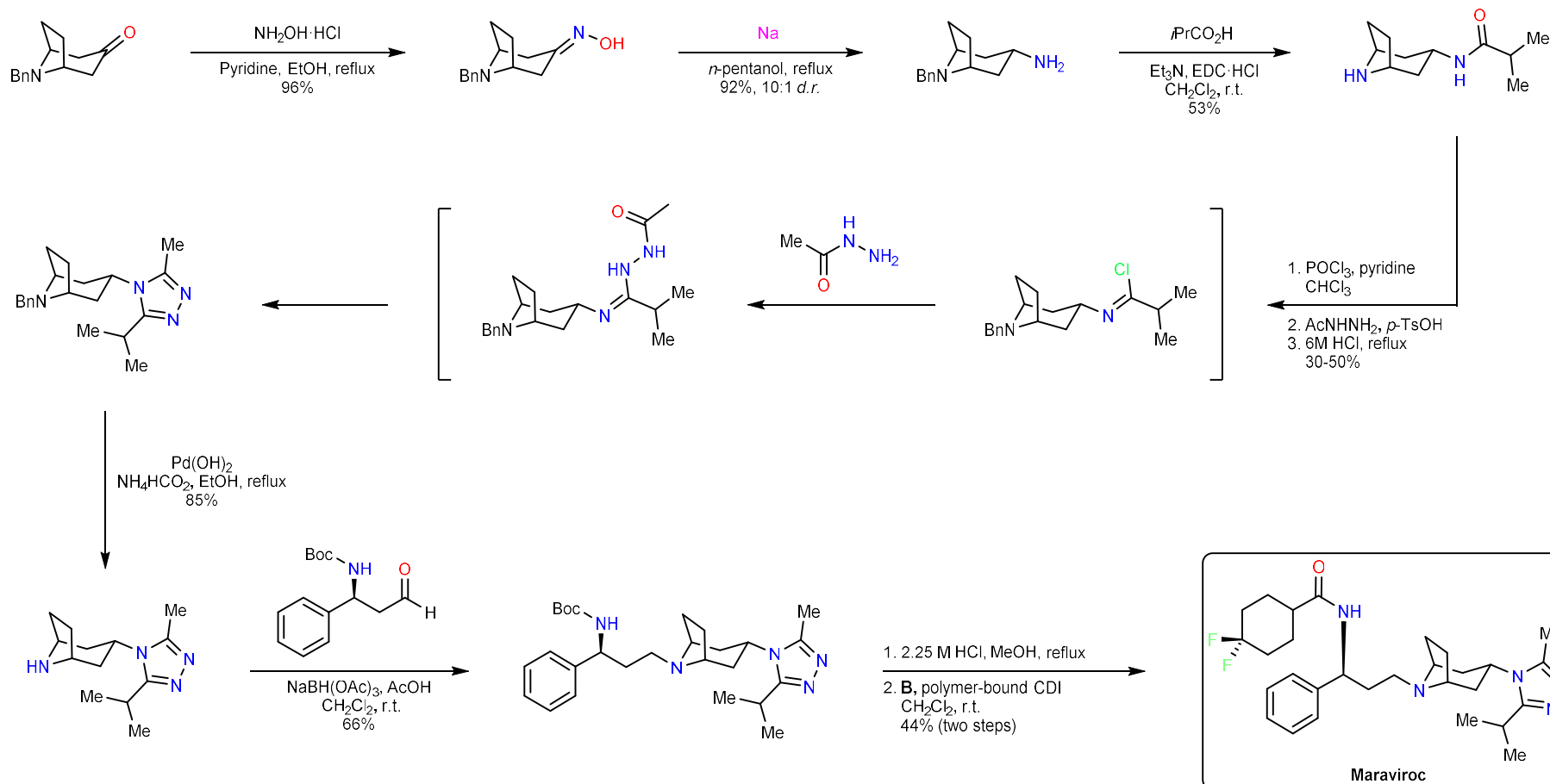
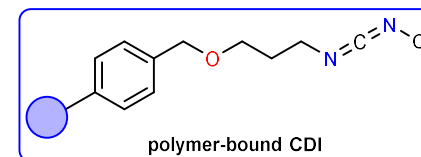
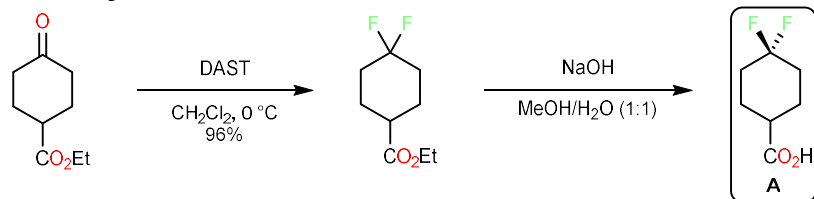
Gulick, R. M. *NEJM* **2008**, *359*, 1429-1441. <https://doi.org/10.1056/nejmoa0803152>

C CD4 Cell Count



No. at Risk	0	4	8	12	16	20	24	28	32	36	40	44	48
Placebo	186	205	206	206	206	206	206	206	206	206	206	206	206
MVC once daily	362	399	405	407	407	407	407	407	407	407	407	407	407
MVC twice daily	386	412	417	418	418	418	418	418	418	418	418	418	418

Discovery Route



PCT Int. Appl. WO 2001/090106A2; Haycock-Lewandowski, S. J. *OPRD*, **2008**, 12, 1094-1103 <https://doi.org/10.1021/op8000614>;

Price, D. A., *Tetrahedron Lett.* **2005**, 5005-5007. <https://doi.org/10.1016/j.tetlet.2005.05.082>