**A Formal Total Synthesis of (-)-FR901483 Using a Tandem Cationic aza-Cope
Rearrangement/Mannich Cyclization Approach**

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Supporting Information

^1H NMR and ^{13}C NMR spectra	S2 – S24
Crystal structures of compound 11 and 29 (isomer 1)	S25

^1H and ^{13}C NMR spectra

Compound **11**

Compound 14

Compound 16

Compound 18

Compound **22** (isomer 1)

Compound **26** (isomer 1)

Compound **26** (isomer 2)

Compound **27** (isomer 2)

Compound **28** (isomer 1)

Compound **28** (isomer 2)

Compound **29a**

Compound **29α** (^1H - ^1H COSY, DEPT)

Current Data Parameters
NAME test
EXPNO 11
PROCNO 1

F2 - Acquisition Parameters
Date_ 20090909
Time 14.38
INSTRUM spect
PROBHD 5 mm T3 13C
PULPROG zgpg30
TD 65536
SOLVENT dms
NS 10
DS 4
SWH 4005.410 Hz
F2 3.812610 Hz
AQ 0.1279460 sec
RG 655
IN 134.900 MHz
DE 5.00 UHZ
TE 300.2 K
NUC1 13C
NUC2 1H
D1 0.00000000 sec
D2 1.00000000 sec
F1 11.00 UHZ
PC 11.00 UHZ
DE 5.00 UHZ
SFO1 500.1300500 MHz
SFO2 500.1300500 MHz
NUC1 13C
NUC2 1H
P1 0.00 dB
SFO 500.1300500 MHz

F1 - Acquisition Parameters
NAME test
EXPNO 11
PROCNO 1
SFO1 500.1300500 MHz
SFO2 500.1300500 MHz
SFO 500.1300500 MHz
PC 11.00 UHZ

F2 - Processing parameters
SI 32768
SF 500.1300500 MHz
WDW EM
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

F1 - Processing parameters
SI 32768
SF 500.1300500 MHz
WDW EM
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

2D NMR plot parameters
CX 18.00 cm
CY 18.00 cm
FID 4.000 sec
F2 2282.22 Hz
F3 1.387 sec
F4 883.74 Hz
F5 0.584 sec
F6 2282.22 Hz
F7 1.400 sec
F8 751.34 Hz
F9 0.21174 sec/cycle
F10 100.00000 Hz/cycle
F11 0.21278 sec/cycle
F12 100.00000 Hz/cycle

Compound **29 α** (NOE)

Compound 29β

Compound **34 β**

Compound 32β

**[7,9-Bis-benzyloxy-6-(4-methoxybenzyl)-5-aza-tricyclo[6.3.1.0^{1,5}]dodec-3-yl]-
methylcarbamic acid *tert*-butyl ester**

Compound 36β

Compound 24

Compound 17

Compound 12

Crystal structures of Compound **11** and **26**(isomer 1)