Supporting Information

for

Synthesis of legonmycins A and B, C(7a)-hydroxylated bacterial pyrrolizidines

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Copies of the NMR spectra for compounds 16, 17 (crude HCl salt and purified free-base), 22, 3 (legonmycin A), and 4 (legonmycin B)
$^1$H NMR (400 MHz, CDCl$_3$)  
$^{13}$C NMR (100 MHz, CDCl$_3$)  

$\text{dr} \sim 1:1$, each diastereomer $\sim 2:1$ ratio of $N$-Boc rotamers
\[ ^1H \text{ NMR (400 MHz, CD}_3\text{OD) crude, HCl salt} \]

\[ ^13C \text{ NMR (100 MHz, CD}_3\text{OD) crude, HCl salt} \]
$^1$H NMR (400 MHz, CDCl$_3$)

freebase, after chromatography

$^{13}$C NMR (100 MHz, CD$_3$OD)

freebase, after chromatography
\[^1\text{H} \text{NMR} (400 \text{ MHz}, \text{CD}_3\text{OD})\]

\[\begin{align*}
\text{MeO} & - \text{O} \\
\text{N} & - \text{C} - \text{N} \\
\text{H} & - \text{O} \\
\text{MeO} & - \text{N} - \text{O} \\
\end{align*}\]

\[^{13}\text{C} \text{NMR}, 100 \text{ MHz}, \text{CD}_3\text{OD})\]

\[\begin{align*}
\text{MeO} & - \text{O} \\
\text{N} & - \text{C} - \text{N} \\
\text{H} & - \text{O} \\
\text{MeO} & - \text{N} - \text{O} \\
\end{align*}\]

\text{toluene}
\[ \overset{1}{H} \text{ NMR (400 MHz, CD}_3\text{OD)} \]

\[
\text{legomycin A}
\]

\[ \overset{13}{C} \text{ NMR (100 MHz, CD}_3\text{OD) contains } \sim 10 \text{ wt\% toluene} \]

\[
\text{legomycin A}
\]
$^1$H NMR (400 MHz, DMSO-$d_6$)

![NMR Spectrum](image)

legonmycin B

$^{13}$C NMR (100 MHz, DMSO-$d_6$)

![NMR Spectrum](image)

legonmycin B