Supporting Information

for

A Practical Asymmetric Synthesis of Isopropyl (1R, 2S)-

Dehydrocoronamate

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Determination of the enantiomeric purity of mono acid salt 12

Determination of the enantiomeric purity of isopropyl (1R, 2S)- dehydrocoronamate TsOH salt (13)

$^1$H NMR of cyclic sulfate 5

$^1$C NMR of cyclic sulfate 5

$^1$H NMR of vinylcyclopropane diisopropyl ester 3c

$^1$C NMR of vinylcyclopropane diisopropyl ester 3c

$^1$H NMR of mono acid salt 12

$^1$C NMR of mono acid salt 12

$^1$H NMR of isopropyl (1R, 2S)- dehydrocoronamate TsOH salt (13)

$^1$C NMR of isopropyl (1R, 2S)- dehydrocoronamate TsOH salt (13)
1. Determination of the enantiomeric purity of mono acid salt 12

The enantiomeric purity of mono acid salt 12 was determined by converting to its mono acid 10 through salt-break. The ee was determined to be >99%.

Chiral HPLC method for rac-10: Chiralcel OJ-H, 4.6 mm X 250 mm, 22 °C, flow rate: 1 mL, heptane/isopropanol: 95/5, 225 nm, 6.17 min (1S, 2S), 6.66 min (1R, 2R).

Sample preparation: a sample of mono acid salt 12 (5 mg) was treated with EtOAc (0.5 mL) and 10% H₃PO₄ solution (w/w, 0.5 mL). The mixture was shaked for 0.5 min and then settled. The organic phase was diluted with isopropanol for HPLC injection.
2. Determination of the enantiomeric purity of isopropyl (1R, 2S)-dehydrocoronamate TsOH salt (13)

The enantiomeric purity of isopropyl (1R, 2S)-dehydrocoronamate TsOH salt (13) was determined by converting to its corresponding methyl ester by treatment with NaOMe/MeOH at rt for 12 h. The ee was determined to be >99%.

Chiral HPLC method for racemic methyl ester: Chiralpak AD-RH, 4.5 mm X 150 mm, 20 °C, MeOH/water/diethylamine 95/5/0.1, 215 nm, 4.98 min (1R, 2S), 5.80 (1S, 2R).