Supporting Information

An Efficient Enantioselective Approach to Cyclic β -Amino Acid Derivatives via Olefin Metathesis Reactions

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General Experimental

All solvents were distilled and properly dried, when necessary, prior to use. All chemicals were purchased from commercial sources and used directly, unless indicated otherwise. All reactions were run under N₂, unless otherwise indicated. During usual workup, all organic extracts were dried (Na₂SO₄ or MgSO₄) and evaporated. All reactions were monitored by thin layer chromatography (TLC) on precoated silica gel 60 F254 (Merck); spots were visualized with UV light or by treatment with molybdate solution or 1% aqueous KMnO₄ solution. Products were purified by flash chromatography on Merck silica gel 60 (230 – 400 mesh). ¹H and ¹³C NMR spectra were recorded with 300 MHz (¹H, 300 MHz; ¹³C, 75.4 MHz) and 400 MHz (¹H, 400 MHz; ¹³C, 100 MHz) NMR spectrometers. Chemical shifts are reported in parts per million downfield from SiMe₄ (δ = 0.0).

Compound 1
 ^1H NMR (400 MHz, CDCl_3)

Compound 1
 ^{13}C NMR (75 MHz, CDCl_3)

S3
Compound 2
 ^1H NMR (400 MHz, CDCl_3)

Compound 2
 ^{13}C NMR (100 MHz, CDCl_3)

S4

Compound 3
 ^1H NMR (300 MHz, CDCl_3)

Compound 5
 ^1H NMR (300 MHz, CDCl_3)

S5

Compound 5
 ^{13}C NMR (300 MHz, CDCl_3)

Compound 6
 ^1H NMR (300 MHz, CDCl_3 , 323°K)

Compound 7
 ^1H NMR (300 MHz, CDCl_3)

Compound 7
 ^{13}C NMR (75 MHz, CDCl_3)

Compound 8
 ^1H NMR (400 MHz, CDCl_3)

Compound 8
 ^{13}C NMR (100 MHz, CDCl_3)

Compound 9
 ^1H NMR (400 MHz, CDCl_3)

Compound 9
 ^{13}C NMR (75 MHz, CDCl_3)

Compound 10
 ^1H NMR (300 MHz, CDCl_3)

Compound 11
 ^1H NMR (400 MHz, CDCl_3)

Compound 12
¹H-NMR (300 MHz, CDCl₃)

Compound 13

^1H NMR (400 MHz, CDCl_3)

Compound 13

^{13}C NMR (100 MHz, CDCl_3)