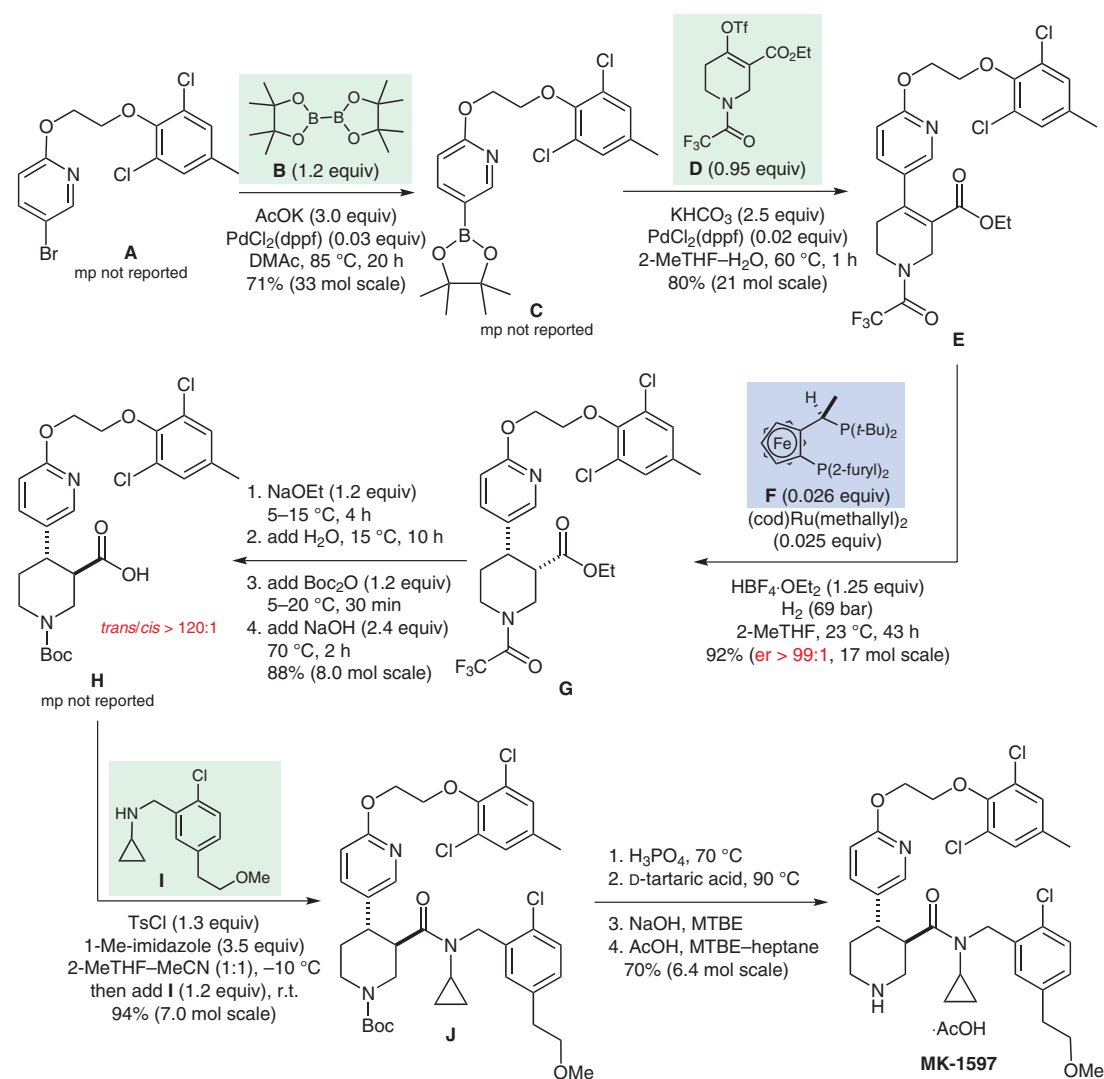


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A Practical Synthesis of Renin Inhibitor MK-1597 (ACT-178882) via Catalytic Enantioselective Hydrogenation and Epimerization of Piperidine Intermediate

*J. Org. Chem.* **2011**, *76*, 1062-1071.

## Synthesis of Renin Inhibitor MK-1597



**Significance:** The key feature in the synthesis of MK-1597 (ACT-178882) is the highly efficient ruthenium-catalyzed asymmetric hydrogenation of the tetrasubstituted alkene **J** followed by a mild epimerization reaction to set both stereogenic centers in **H** (*trans/cis* > 120:1).

**Comment:** The renin inhibitor MK-1597 is a promising lead in the treatment of hypertension. It was synthesized in nine steps (longest linear sequence) in 29% overall yield. Most of the intermediates were solids, but they were not purified before being used in the succeeding steps.

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Synfacts 2011, 5, 0461-0461 Published online: 15.04.2011  
DOI: 10.1055/s-0030-1259769; Reg-No.: K01511SF

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Category

Synthesis of Natural Products and Potential Drugs

Key words

MK-1597

renin inhibitors

palladium-catalyzed borylation

Suzuki-Miyaura coupling

asymmetric hydrogenation

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of the month