

# Carboxylic Acid Analogues of Fosmidomycin

Thomas Kurz\*, Detlef Geffken, and Claudia Wackendorff

Institute of Pharmacy, University of Hamburg, Bundesstrasse 45, D-20146 Hamburg, Germany

Reprint request to Dr. T. Kurz. Fax: +49-(0)40-42838-6573

Z. Naturforsch. **58b**, 457–461 (2003); received February 6, 2003

*N*-Alkylation of *N*-Boc-*O*-benzylhydroxylamine (**1**) with benzyl 4-bromobutyrate (**2**) in DMF gave *N,O*-bisprotected benzyl 4-hydroxyamino-butyrate (**3**), which was converted into 4-benzyloxyamino-butyric acid benzyl ester (**4**) with TFA in methylene chloride. Treatment of **4** with formic acid/acetic anhydride or various acid chlorides followed by catalytic hydrogenation led to 4-(*N*-acyl-*N*-hydroxyamino)-butyric acids **6**.

*Key words:* Non-mevalonate Isoprenoid Biosynthesis, Fosmidomycin, 4-(*N*-Acyl-*N*-hydroxyamino)-butyric Acids