Research Title Biotransformation of dihydroisosteviol methyl ester

and its C-19 alcoholic analogue by

Bacillus megaterium NRRL B-938

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Biotransformations of dihydroisosteviol methyl ester and its C-19 alcoholic analogue by *Bacillus megaterium* NRRL B-938 have been investigated. Dihydroisosteviol methyl ester (18) was biotransformed to 7α -dihydroisosteviol methyl ester which was hydroxylated at C-7. Its C-19 alcoholic dihydroisosteviol analogue (19) was converted to three metabolites. All of them were hydroxylated at the methylene carbon: the metabolite 21 was hydroxylated at C-6 with α -orientation, whereas the metabolite 22 was hydroxylated at C-7 with β -orientation, and the metabolite 23 was hydroxylated at C-1 with α -orientation and C-7 with β -orientation. The metabolites 21-23 have not previously been reported.

These hydroxylated metabolites could not easily be synthesized by chemical method. Microbial transformations by *Bacillus megaterium* NRRL B-938 have made it possible to hydroxylate at unactivated methylene carbons. A number of hydroxylated analogues are available for biological activity valuations.