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研究论文

利用三种方法合成偏诺皂甙类化合物

张守勤, 张劲松, 王长征

吉林大学生物与农业工程学院, 长春 130025

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摘要 利用三种重要的糖苷化方法, 合成了6个偏诺皂甙类化合物(7～12). 在三种合成方法中, 分别选择了单糖及二糖的卤苷供体、三氯亚胺酯供体及硫苷供体(1～6)以考察它们与受体偏诺皂甙元的反应结果. 利用偏诺皂甙元在3位和17位羟基上的位阻差异, 使偏诺皂甙元17位羟基在不被保护的情况下与每种糖供体只在其3位羟基发生选择性反应.

关键词 偏诺皂甙 偏诺皂甙元 合成 糖苷化 选择性

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Synthesis of Pennogenyl Saponins *via* Three Methods

ZHANG Shou-Qin, ZHANG Jin-Song, WANG Chang-Zheng

College of Biology and Agricultrue Engineering, Jilin University, Changchun 130025, China

Abstract The pennogenyl saponins(7—12) were synthesized by using three important methods of glycosylation. As donors(1—6), glycosyl halide, trichloroimidate and thioglycoside were chosen to react with the acceptor pennogenin to investigate the results of these reactions. In these reactions the difference of steric hindrance between 3-OH and 17-OH of pennogenin was utilized skillfully and only 3-hydroxyl group of pennogenin could be connected with each kind of donors selectively and there was no reaction at 17-hydroxyl group which had no protection. The characteristic above makes it convenient to synthesize the compounds of pennogenyl saponins.

Key words Pennogenyl saponin Pennogenin Synthesis Glycosylation Selectivity

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通讯作者 张守勤 jluzsq@163.com