

N-连接的糖蛋白核心甘露五糖及其异构体的合成研究

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摘要 以1,2-O-亚乙基-4,6-O-亚苄基-β-D-甘露糖(2)和2,3,4,6-四-O-苄甲酰基-α-D-甘露吡喃糖基三氯乙酰亚胺酯(3)为基本原料,经一些简单的化学转换和选择性的糖基化反应,得到了甘露核心五糖及其异构体。

关键词 [糖蛋白](#) [区域选择性](#) [立体选择性](#) [寡糖](#) [甘露糖](#) [异构体](#) [合成](#)

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A facile large scale synthesis of the core mannose pentasaccharide of N-linked glycoprotein and its isomer

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Abstract Condensation with 1, 2-O-ethylidene-4, 6-O-benzylidene-β-D-mannopyranose (2) as the acceptor and 2, 3, 4, 6-tetra-O-benzoyl-α-D-mannopyranosyl trichloroacetimidate (3) as the donor gave 3-O-linked disaccharide (4), subsequent debenzylidenation afforded the disaccharide acceptor 5. Coupling of 5 with 3 selectively furnished 6-O-linked trisaccharide 6, then deethylidenation, acetylation, selective 1-O-deacetylation, and trichloroacetimidation yielded the trisaccharide donor 10. Condensation of 10 with 5 afforded 6-O-linked pentasaccharide 11, its deethylidenation followed by acetylation gave the required pentasaccharide 13. Coupling of 10 with 2 gave the tetrasaccharide 14, its debenzylidenation afforded the tetrasaccharide acceptor 15. Condensation of 15 with 3 gave the pentasaccharide isomer.

Key words [GLYCOPROTEIN](#) [REGIOSELECTIVITY](#) [STERESELECTIVITY](#) [OLIGOSACCHARIDE](#) [MANNOSE](#) [ISOMER](#) [SYNTHESIS](#)

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