Synthesis of Lewis X trisaccharide analogues in which glucose and rhamnose replace N-acetylglucosamine and fucose, respectively

Publons ID	5936315
Wos ID	WOS:000182642600004
Doi	10.1016/S0008-6215(03)00053-3
Title	Synthesis of Lewis X trisaccharide analogues in which glucose and rhamnose replace N- acetylglucosamine and fucose, respectively
First Author	
Last Author	
Authors	Asnani, A; Auzanneau, FI;
Publish Date	MAY 1 2003
Journal Name	CARBOHYDRATE RESEARCH
Citation	13
Abstract	Two analogues of the Le(x) trisaccharide, alpha-L-Fucp -(1> 3)-[beta-D-Galp -(1> 4)]-D-Glcp were synthesized as allyl glycosides. In these derivatives either only the N-acetylglucosamine is replaced by glucose or both the N-acetylglucosamine and the facosyl residue are replaced by glucose and rhamnose, respectively. Our synthetic scheme used armed beta-thiophenyl fuco- and rhamnoside glycosyl donors that were prepared anomerically pure from the corresponding alpha-glycosyl bromides. The protecting groups were chosen to allow access to the fully deprotected trisaccharides without reduction of the allyl glycosidic group. These analogues will be used as soluble antigens in binding experiments with anti-Le(x) antibodies and can also be conjugated to a carrier protein and used as immunogens. In the course of this synthetic work, we also describe the use of reversed-phase HPLC to purify key protected trisaccharide intermediates prior to their deprotection. (C) 2003 Elsevier Science Ltd. All rights reserved.
Publish Type	Journal
Publish Year	2003
Page Begin	1045
Page End	1054
lssn	0008-6215
Eissn	1873-426X
Url	https://www.webofscience.com/wos/woscc/full-record/WOS:000182642600004
Author	ARI ASNANI, S.Si, M.Sc., Ph.D