

# Regioselective Glycosylation of Glucosamine and Galactosamine Derivates Using O-Pivaloyl Galactosyl Donors

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Penta-O-pivaloyl-galactopyranose and tetra-O-pivaloyl-galactopyranosyl bromide after electrophilic activation reacted with 6-O-protected 2-azido-galactosides to give the precursor structures of the Thomsen-Friedenreich antigen disaccharide with high regioselectivity, but low yield. With 4,6-O-benzylidene protected 2-azidogalactosides and 2-O-pivaloyl phenylthio galactosides, T-antigen disaccharides of this type were obtained in good yields. Glycosylation reactions of 4,6-O-benzylidene protected glucosamine derivatives with O-pivaloyl protected galactosyl bromide efficiently gave lactosamine disaccharides. Even a thioglycoside was efficiently galactosylated by this method resulting in the formation of a disaccharide thioglycoside useful itself as a potential glycosyl donor.

*Key words:* O-Pivaloyl Galactosyl Donors, Glycosylation Reactions, T Antigen