

IN VIVO APPLICATION OF CARBOHYDRATE FUNCTIONALISED MRI-AGENTS

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The synthesis and *in vivo* application of a Sialyl Lewis^X-derivatised cross-linked iron oxide particle (CLIO) is presented.

This compound was shown to be an excellent agent for the *in vivo* visualisation of the expression of *E*-selectin in a rat model for multiple sclerosis.

The synthesis of the Sialyl Lewis^X-derivatised CLIO employs the 2-methoxy-2-imido-linker (IME) system. This methodology, previously only used with monosaccharides, has now been extended for use of the linker-precursor in enzymatic extension-reactions (figure 1) and for polysaccharides.

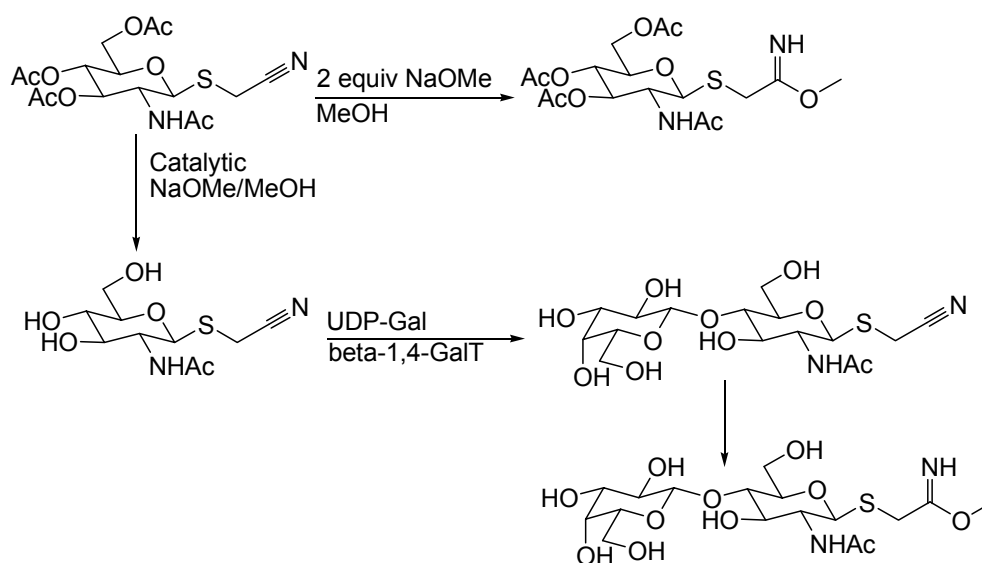


Figure 1 : use of S-cyanomethyl-*N*-acetylglucosamine linker-precursor in enzymatic extension reaction.