# Endohexosaminidase catalysed synthesis of glycopeptides and proteins

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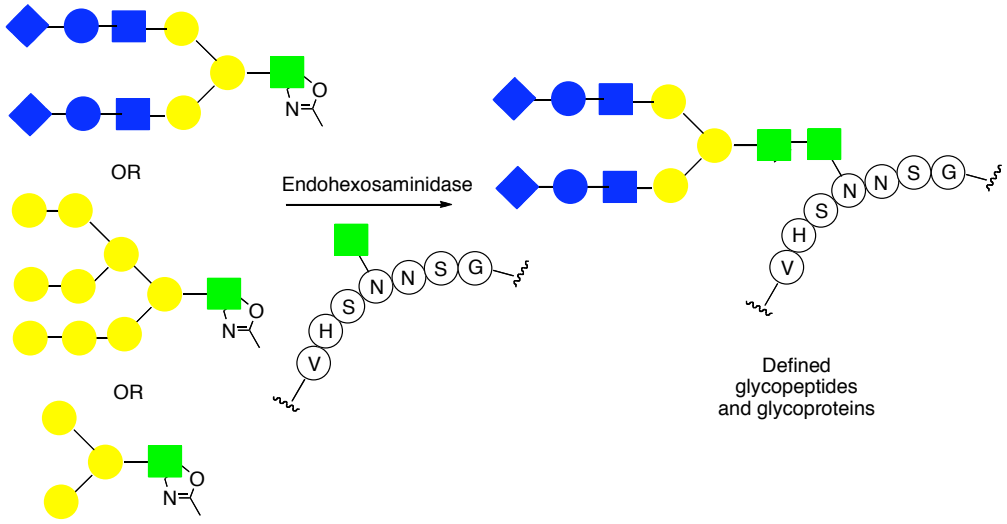
The synthetic application of endohexosaminidase enzymes (e.g. Endo A, Endo M, Endo D) promises to allow ready access to a wide variety of defined homogenous glycoproteins and glycopeptides. In particular the use of *N*-glycan oligosaccharides that are activated at the reducing terminus as oxazolines[1] allows their high yielding attachment to almost any amino acid, peptide or protein that contains a GlcNAc residue as an acceptor. A wide variety of oxazoline donors are readily available, either by total synthesis[2] or by isolation of the corresponding oligosaccharide from natural sources and then conversion to the oxazoline in water.[3] Finally the synthetic potential of the enzymes is particularly augmented by the production of mutant glycosynthases.[4] The development of this methodology, and its application for the synthesis of a variety of defined glycopeptides of biological interest, including vaccine candidates and anti-diabetic agents, will be discussed.

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