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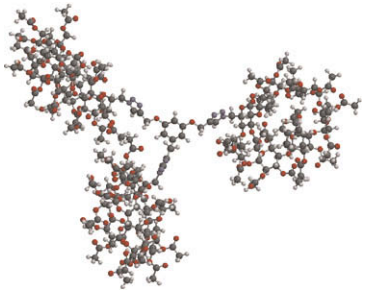
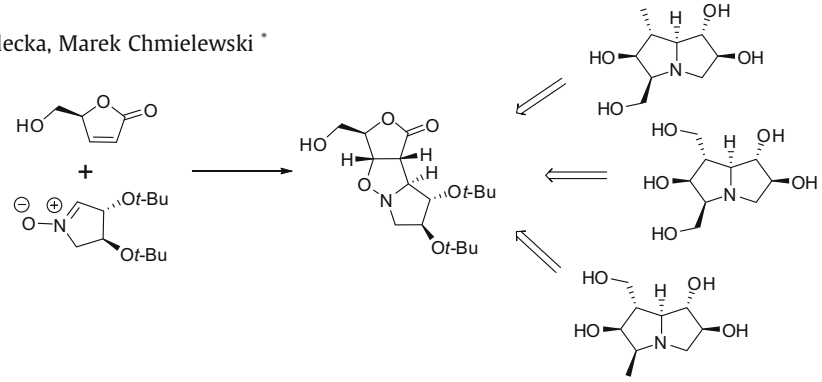
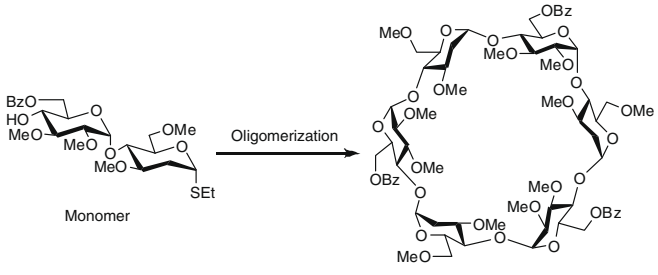
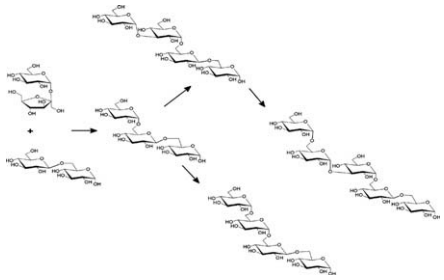
Contents

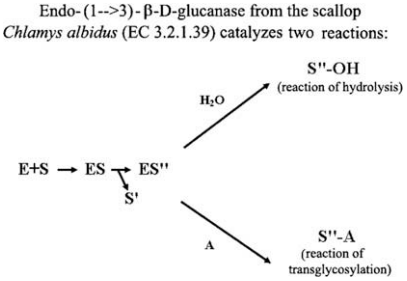
FULL PAPERS



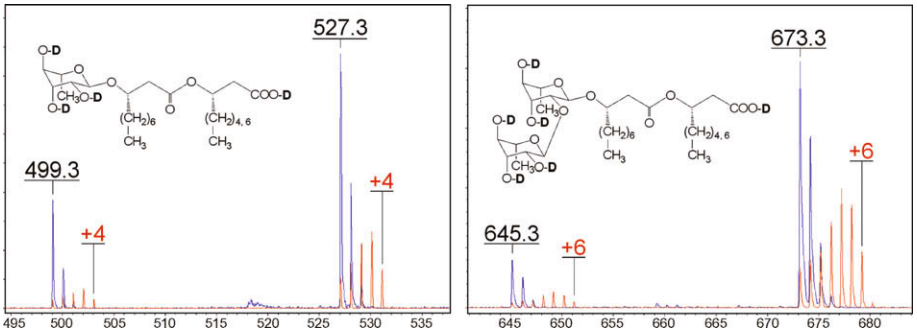


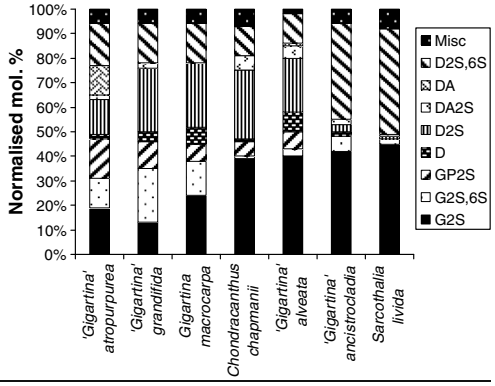


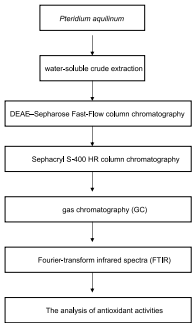


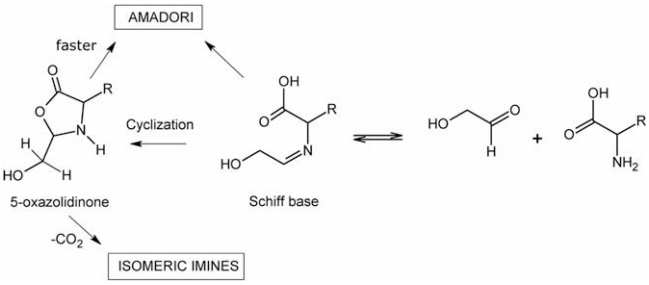


Three oligosaccharides (OJ1–OJ3) were obtained by acid degradation of crude polysaccharides from *Nerium indicum* Mill. The study of chemical and spectroscopic methods demonstrated that they were β-D-Gal*p*-(1→[4)-β-D-Gal*p*-(1→]$_4$4)-D-Gal*p* (OJ1), β-D-Gal*p*-(1→[4)-β-D-Gal*p*-(1→]$_3$4)-D-Gal*p* (OJ2) and another new oligosaccharide, β-D-Gal*p*-(1→[4)-β-D-Gal*p*-(1→]$_9$4)-D-Gal*p* (OJ3). Angiogenesis test showed that OJ2 and OJ3 blocked cell tube formation of HMEC-1.

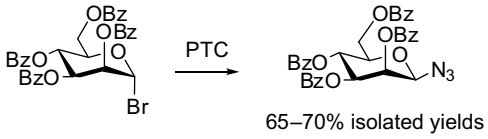


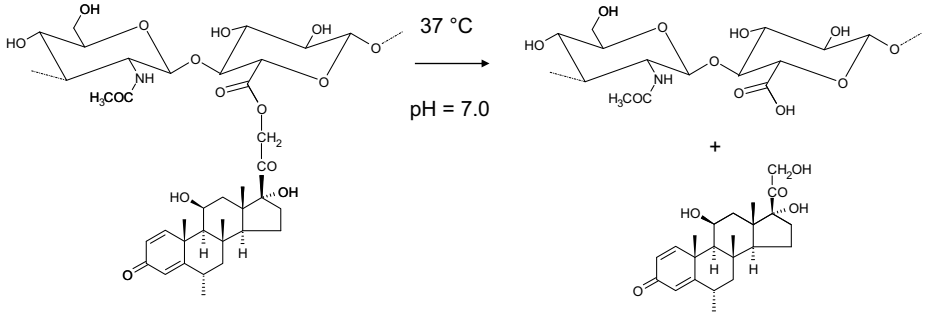


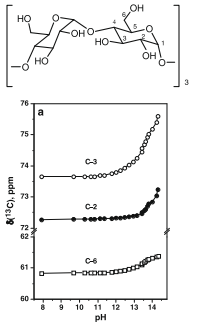


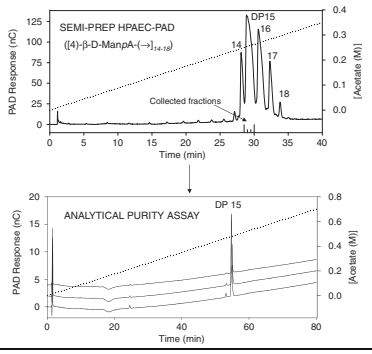


Notes

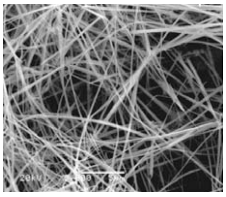








$$H_2SeO_3 + 2C_6H_8O_6 \xrightarrow[\text{Gellan gum}]{\text{Agarose}} Se \downarrow + 2C_6H_6O_6 + 3H_2O$$



*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

COVER

Shown is a fluorescence image of cell-surface glycans in a 3-day old zebrafish larva. Dierent colors represent glycans biosynthesized at dierent times in development. The glycans were imaged in live zebrafish using a two-step approach termed the bioorthogonal chemical reporter strategy. Embryos were first metabolically labeled with the unnatural monosaccharide *N*-azidoacetylgalactosamine, which targets the core position of mucin-type O-glycans; subsequently, the azide-containing glycans were reacted with a cyclooctyne–fluorophore conjugate by copper-free click chemistry, a step that was repeated multiple times to target temporally distinct glycan pools with different fluorophores. This work is the result of a collaboration between the Departments of Chemistry and Molecular and Cell Biology at the University of California, Berkeley [Laughlin, S. T.; Baskin, J. M.; Amacher, S. L.; Bertozzi, C. R. *Science* **2008**, *320*, 664].

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