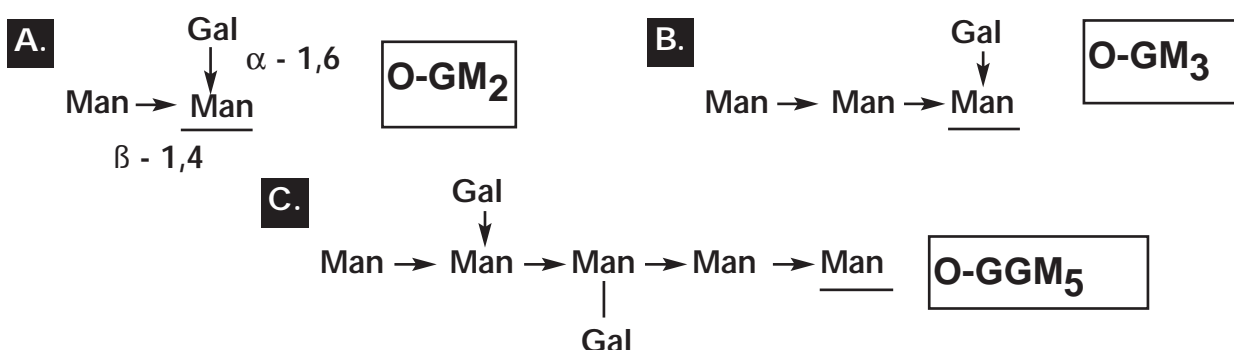


## GALACTO-MANNO-OLIGOSACCHARIDES

04/01

Galactosyl-manno-oligosaccharides are prepared by hydrolysis of galactomannan with  $\beta$ -mannanase. The mixture of oligosaccharides are then separated chromatographically. The purified oligosaccharides have been structurally characterised using enzymic, n.m.r and chemical techniques (gc/ms). Details of these techniques are presented in: McCleary, B.V., Nurthen, E, Tavel, F. R. and Joseleau, J-P. (1983) **Carbohydrate Research**, 118, 91-109.

**NOTE:** galactose is linked  $\alpha$ -1,6; mannose is linked  $\beta$ -1,4.



### THIN LAYER CHROMATOGRAPHY OF OLIGOSACCHARIDES:

**Solvent:** *n*-Propanol-ethanol-water (7:1:2; developed twice for 2 x 6 h).  
**Sample:** 10  $\mu$ litres of a 10 mg/ml solution.  
**Spot Development:** 5% sulphuric acid in ethanol spray, followed by incubation at 110°C for about 5 min.

### OLIGOSACCHARIDES:

- 1 = G<sup>2</sup>M<sub>5</sub> (51103)
- 2 = G<sup>2</sup>M<sub>5</sub> (Lot 10407)
- 3 = GM<sub>3</sub> (Lot 51102)
- 4 = GM<sub>3</sub> (Lot 10403)
- 5 = GM<sub>3</sub> (Lot 10404)
- 6 = GM<sub>3</sub> (Standard)
- 7 = GM<sub>2</sub> + Man<sub>3</sub> (Lot 51101)
- 8 = GM<sub>2</sub> (Lot 10402)
- 9 = GM<sub>2</sub> + Man<sub>3</sub> (Lot 10403)

GM<sub>2</sub> = 6<sup>1</sup>- $\alpha$ -D-galactosyl manno-<sub>2</sub>biose

GM<sub>3</sub> = 6<sup>1</sup>- $\alpha$ -D-galactosyl manno-<sub>3</sub>triose

G<sup>2</sup>M<sub>5</sub> = 6<sup>3,6</sup>-di- $\alpha$ -D galactosyl manno-<sub>5</sub>pentaose

