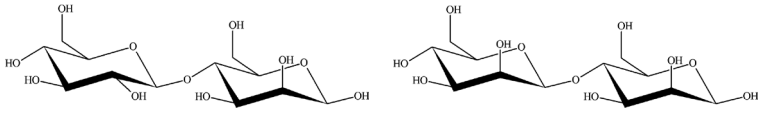
1,4-ß-D-Glucosyl-D-Mannose plus 1,4-ß-D-Mannobiose (Lot 120602)

O-GMMBI **06/12**

MW: 342.4
CAS No. -

1,4-β-D-Glc-D-Man (~ 54%) + **1,4-β-D-Man-D-Man (~ 45%)**

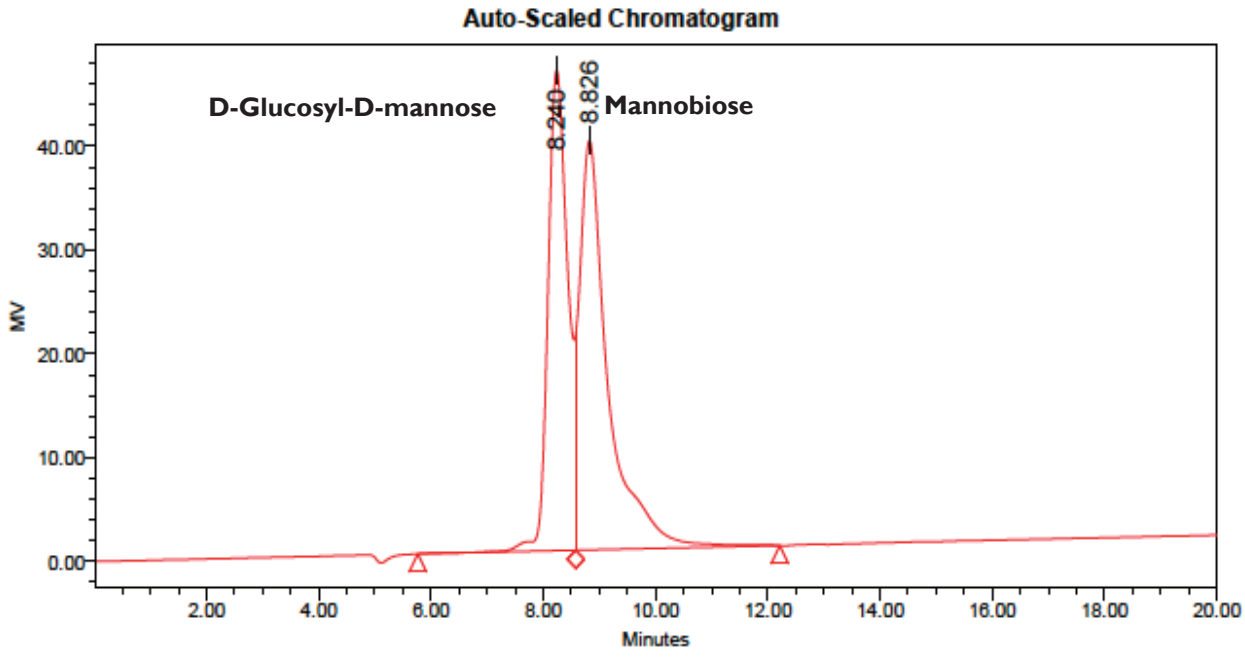


PREPARATION: Prepared by controlled enzymic hydrolysis of glucomannan.

PURITY: ~ 96% (contains trace levels of 1,4-β-D-Man-D-Glc and cellobiose).

HPLC:

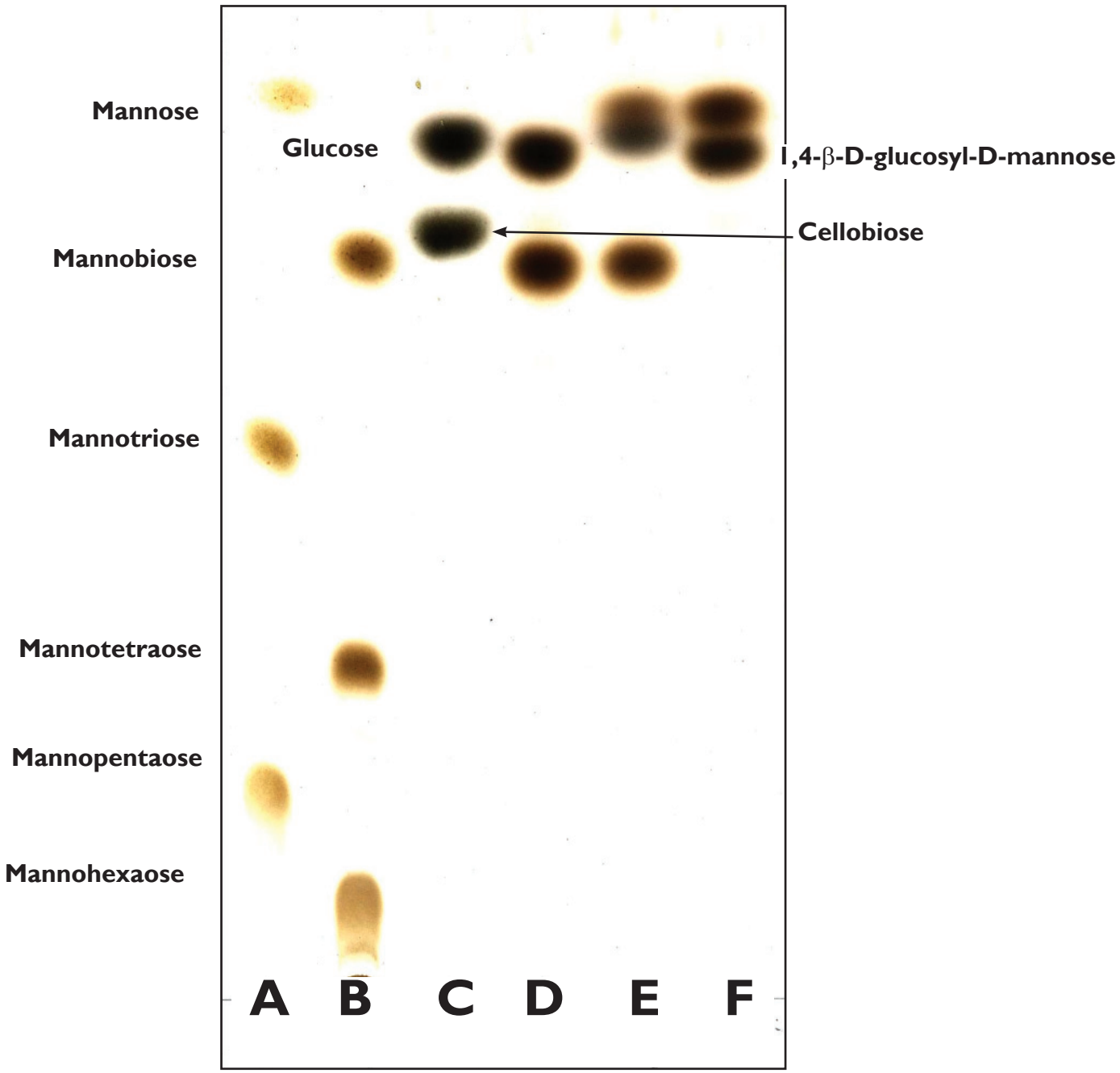
HPLC was performed on a Waters Sugar-Pak® Column (6 x 300 mm); temperature 90°C; mobile phase, distilled water containing 50 mg/L of disodium calcium EDTA (Sigma Cat No. ED2SC); flow rate 0.5 mL/min. A Breeze HPLC System was used incorporating Waters 2410 RI detector and Breeze Version 3.20 software.



Peak Results

	Name	RT	Area	% Area	Height	% Height
1		8.240	1146817	45.16	46372	54.02
2		8.826	1392614	54.84	39467	45.98

Thin layer chromatography of the disaccharide fraction obtained on hydrolysis of konjac glucomannan by β-mannanase.
(Characterisation of the disaccharide mixture (D) by hydrolysis with β-glucosidase and β-mannosidase).



A. Mannose; 1,4-β-D-mannotriose and 1,4-β-D-mannopentaose.

B. 1,4-β-D-Mannobiose; 1,4-β-D-mannotetraose and 1,4-β-D-mannohexaose.

C. Glucose and 1,4-β-D-cellobiose.

D. Disaccharides from β-mannanase hydrolysis of konjac glucomannan.

E. "D" incubated with β-glucosidase showing resistant 1,4-β-D-mannobiose, plus glucose and mannose from hydrolysis of 1,4-β-D-glucosyl-D-mannose.

F. "D" incubated with β-mannosidase showing resistant 1,4-β-D-glucosyl-D-mannose, plus mannose from hydrolysis of 1,4-β-D-mannobiose.