

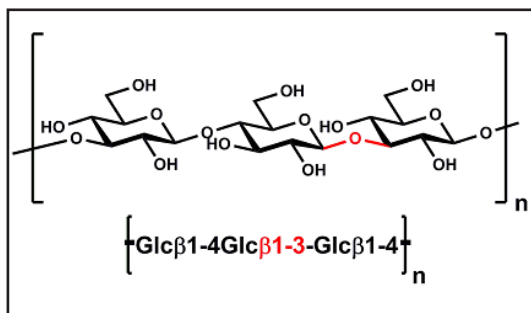
## LICHENAN (Lot 80402)

**P-LICHN**

**10/16**

**CAS: 1402-10-4**

### STRUCTURE



Schematic representation of lichenan

### DESCRIPTION

Lichenan is a linear, 1,3:1,4- $\beta$ -D glucan with a structure similar to that of barley and oat  $\beta$ -glucans. Lichenan has a much higher proportion of 1,3- to 1,4- $\beta$ -D linkages than do the other two glucans. The ratio of 1,4- to 1,3- $\beta$ -D linkages is approximately 2:1.

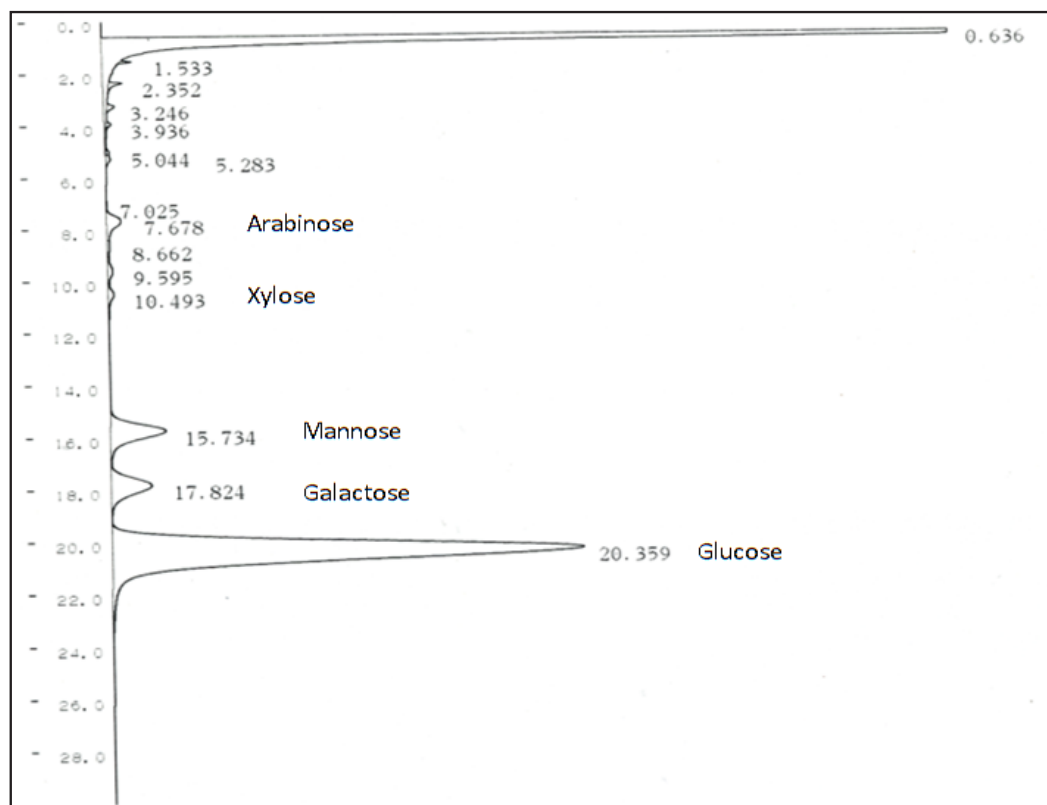
### PROPERTIES

Purity:	$\geq 80\%$
Protein Content:	1.3% (Nitrogen $\times$ 5.7)
Physical Description:	Odourless, off-white powder.
Solubility:	Soluble in hot water.

### Sugar Composition (Lot 80402)

Glucose	81.5%
Arabinose	1.8%
Mannose	7.7%
Xylose	0.6%
Galactose	6.1%
Other Sugars	2.3%

## Gas liquid chromatography of the alditol acetates derived from hydrolysis and derivatisation of Lichenan (Lot 80402)



### GLC

A typical polysaccharide sample (~ 10 mg) was hydrolysed using 2N TFA at 120°C for 60 min. Subsequent sodium borohydride reduction was performed in 1N NH<sub>4</sub>OH for 90 minutes at 40°C. The corresponding alditol acetates were prepared using acetic anhydride and 1-methyl imidazole,

extracted into DCM and analysed by GC. Chromatography was performed on a Shimadzu GC-14B with CHROMATOPACK C-R8A using a Packed glass column (6 ft x 5 mm OD, 3 mm ID) with 3% Silar 10C on W-HP (80-100 mesh). The carrier gas was nitrogen at 130 KPa. Injector temperature; 250°C; Column temperature; 230°C. Detection by FID with 60KPa H<sub>2</sub> pressure and 50 KPa air pressure.