RHAMNOGALACTURONAN I (from Potato) (Lot 150901)

P-RHAM1 **06/19**
CAS: 39280-21-2

METHOD OF PREPARATION

Potato rhamnogalacturonan is prepared by exhaustive hydrolysis of potato pectic galactan with a range of pectolytic enzymes. The enzyme preparations used are essentially free of enzymes active on rhamnogalacturonan.The neutral sugar profile of this polysaccharide is shown in the g.l.c trace below. Sugars other than rhamnose and galacturonic acid are present, however, these are resistant to cleavage by enzymes such as *endo*-arabinanase, *endo*-galactanase, polygalacturonanase and α-L-arabinofuranosidase.

PROPERTIES

Purity > 90 % (on a moisture free basis)

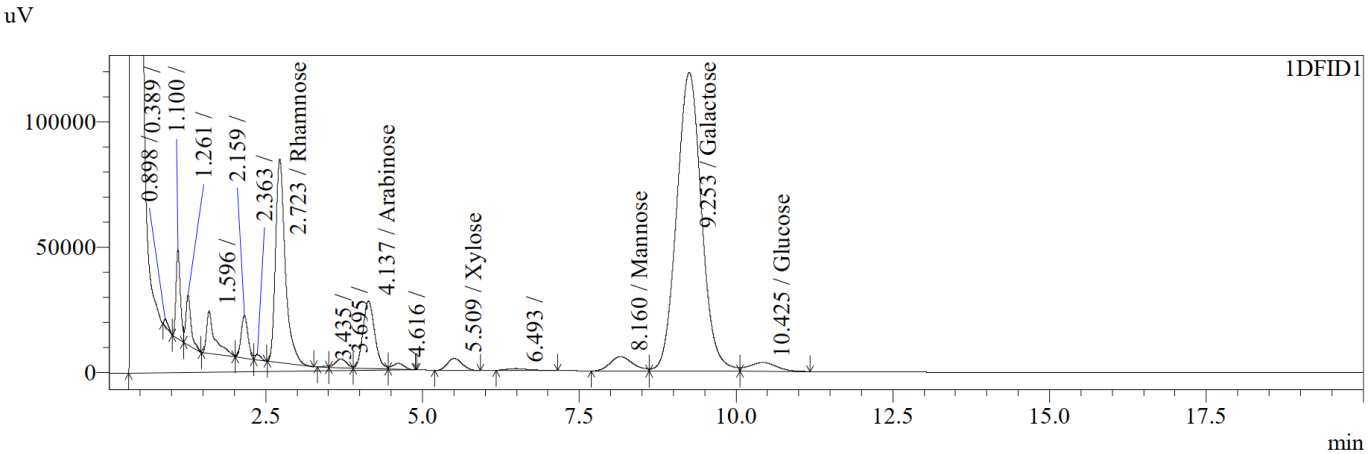
Sugar/Uronic Acid Composition:

Galacturonic acid	61.0%
Rhamnose	6.2%
Arabinose	2.5%
Xylose	0.5%
Galactose	23.1%
Other Sugars	6.7%

STORAGE CONDITIONS

Store dry at room temperature in a well sealed container. Under these conditions, the product is stable for several years.

Gas liquid chromatography of the alditol acetates derived from hydrolysis and derivatisation of rhamnogalacturonan I from potato (Lot 150901)



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_4OH 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 GC-2014 with LabSolutions LC/GC 5.42 Software 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 225 KPa. Injector temperature; 250°C; Column temperature; 230°C. Detection by FID with 100 KPa H_2 pressure and 50 KPa air pressure.