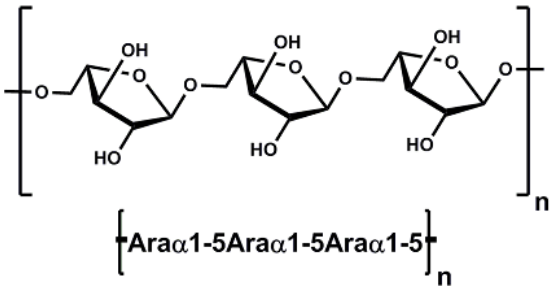
LINEAR 1,5-α-L-ARABINAN (SUGAR BEET) (Lot 161001)

CAT. NO: **P-LARB** **03/17**
CAS: **11078-27-6**

STRUCTURE



Schematic representation of Linear 1,5-α-L-arabinan (sugar beet)

PREPARATION

Linear arabinan is prepared by ion exchange chromatography of debranched arabinan to remove most of the charged pectic fraction. The non-bound fraction is concentrated and freeze-dried.

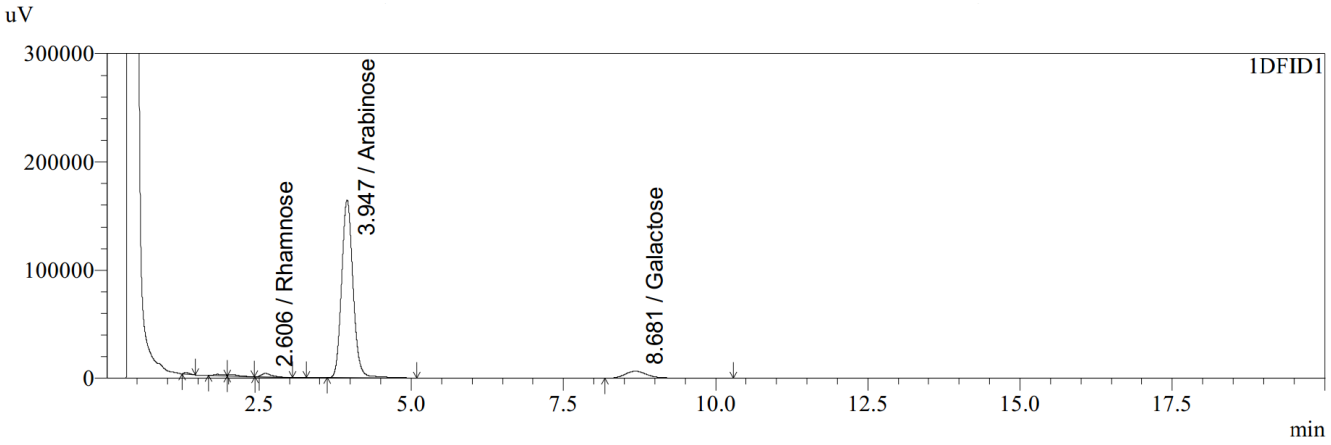
PROPERTIES

Purity:	> 95%
Sugar Composition:	Arabinose 85.2%, galactose 7.6%, rhamnose 1.5%, galacturonic acid 5.7%
Protein:	1.8%
Ash:	1.3%
Moisture:	2.0%
Proton Resonance NMR:	Pattern is identical to that for linear arabinan from pear juice and shows the absence of 1,3-α-linked L-arabinofuranosyl residues.
Physical description:	Odourless, pure white powder.
Solubility:	Limited solubility in cold water. Dissolves in water at 70°C, but will precipitate from solution on storage at 4°C.

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 Linear 1,5-α-L-arabinan (sugar beet) (Lot 161001).



GLC

A typical polysaccharide sample (~ 10 mg) was hydrolysed using 2 N TFA at 120°C for 60 min. Subsequent sodium borohydride reduction was performed in 1 N NH_4OH for 90 min 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-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.