

Megazyme Building 1, Bray Business Park, Bray, Co. Wicklow, A98 YV29, Ireland. Tel: + 353 1 2861220 Fax: + 353 1 2861264

# **Certificate of Analysis**

Product:	Xyloglucan (Tamarind)
Cat. No:	P-XYGLN
Lot. No:	150902
Expiry Date:	N/A

Parameter	Specification	Results
Purity	> 95% (dw basis)	95%
Viscosity	100 – 150 cSt at 1% Solution	142 cSt*
Protein	< 0.5%	0.2%
Moisture	< 10%	2.7%
Ash	< 1%	0.4%

\*1% w/v Solution, 30°C, Ostwald C-type viscometer.

### Solubility:

Signature:

Can be dissolved in hot water at a concentration of 10 mg/mL by slowly adding the powder to vigorously stirring hot water. Stirring should be continued for at least 4 h (at 50°C).

### **Sugar Composition:**

Xylose	34%
Glucose	45%
Galactose	17%
Arabinose	2%
Other sugars	2%

This lot meets our specification.

Roman McGeorgh

Date:

21.Jun.2018

Páraic McGeough Biochemical Analyst/Research Assistant p.p. Ida Lazewska QC/QA Laboratory Manager (as this certificate is a computer printout, it has not been signed or dated by hand)

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#### GC:

Gas liquid chromatography of the alditol acetates derived from hydrolysis and derivatization of Xyloglucan (Tamarind) (Lot 150902)



## 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 NH4OH 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 H2 pressure and 50 KPa air pressure.