Galactoglucans Discover

Description

Galactogalucans Discover

A mixture of soluble polysaccharides is excreted by mutant of Rhizobium meliloti reference-in-status-bar. One of the polysaccharide is a complex succinoglycan having a repeat made up of an octasaccharide, whereas another one has a simplest structure of the galactoglucan type made up of a linear disaccharide repeat. of the galactoglucan.

Fig.1 Schematic representation of the repeating unit of Galactoglucan

The three-dimensional structure has been established from the diffraction data gathered from oriented fibers of the potassium salt. The polysaccharide forms a two-fold helix with a pitch 15.89 Ã in an orthorhombic unit cell. The pyruvic carboxylate and the acetyl substituents on adjacent residues are oriented towards the exterior of the helix. There is an ordered arrangement of the potassium ions around each carboxylate group that involves three water molecules.

Fig.2 Schematic representation of the three-dimensional structure of galactoglucan

Within the unit cell the two helices are oriented in an antiparallel fashion and their association occurs through a series of periodic carboxylateâ?¦potassiumâ?¦waterâ?¦carboxylate interactions.

Category

1. News