



Frequently Asked Questions

Galactomannan Assay Kit

Q. 1: Is your Galactomannan Assay Kit only suitable for the galactomannan in carob or guar or can it be used for any type of galactomannan?

A: The kit can be used for any type of galactomannan, however, to calculate the galactomannan content, you will need to know the galactose/mannose ratio of the galactomannan.

Q. 2: Concerning your Galactomannan Assay Kit (K-GALM), are there any differences in the assay procedure for carob and guar?

A: Carob and Guar galactomannan can be measured using essentially the same procedure.

Q. 3: I have just ordered the Megazyme Galactomannan Assay kit. Can you please tell me is it accurate to calculate the total content of galactomannans based on the mannose/galactose ratio, assuming the latter is known? Also, can this ratio vary as a function not only of guar cultivar, but also of seasonal variety, etc.?

A: Yes, we believe that it is possible to accurately measure the galactomannan content based on the known galactose/mannose ratio. In studies we performed many years ago, we found that there was little difference in the ratio of galactomannans extracted from a wide range of carob seed varieties or of guar seed varieties; please refer to the papers cited below:

McCleary, B.V. (1981). Galactomannan quantitation in guar varieties and seed fractions. Lebensm. – Wiss. Technol., 14, 188-191.

McCleary, B.V., Dea, I.C.M., Clark, A.H. and Rees, D.A. (1985). The fine structures of guar and carob galactomannans. Carbohydrate Research, 139, 237-260.

Q. 4: The Galactomannan Assay Procedure (GLM 8/98) gives the galactose:mannose ratio for carob. I was wondering if you are aware of any similar data on guar gum, i.e. is there any similar galactose:mannose ratio published for guar gum?

A: Yes, we did a lot of work on guar gum from numerous samples, and the value we found for it was 38% +/- 1% galactose.

Q. 5: I am attempting to quantitate Guar Gum or Guaran in baked products. The level of guar in the product is approx. 0.32%. Can the Megazyme Galactomannan Kit be used to measure this?

A: The Megazyme Galactomannan Kit measures guar and carob galactomannans. The method is based on hydrolysis of galactomannan to galactose and manno-oligosaccharides and the galactose is measured with galactose dehydrogenase. The method could be adapted for levels of 0.3%.

Q. 6: What is a suitable NAD preparation to use for the Galactomannan Kit?

A: Sigma product N-7004 is suitable. This should always be dissolved in distilled water rather than buffer.

Q. 7: Is there an alternative galactose dehydrogenase product which can be used for the Galactomannan assay method?

A: Sigma product N-7004 is a suitable alternative to Boehringer Mannheim 662046 and can be used at the same volume per test.