

The Facts

Applications

- processing control in brewing industries (suitable for beer, unfinished beer and wort)
- quality control in breweries, malt houses, and trade
- process optimising, research and development

The conditions of use

- measuring range: 10 to 500 mg/l β -glucan
- only one calibration per assay kit
- **no** measuring disturbances at:
 - glucose*: up to 100-fold average concentration (Pilsner)
 - protein*: up to 100-fold average concentration (Pilsner)
 - starch*: clearly above average concentration (Pilsner)
 - ethanol*: up to 48 vol-%
- optimal ionic strength and optimal pH value are granted by buffered solutions
- shelf life of the test solution: 6 months at room temperature

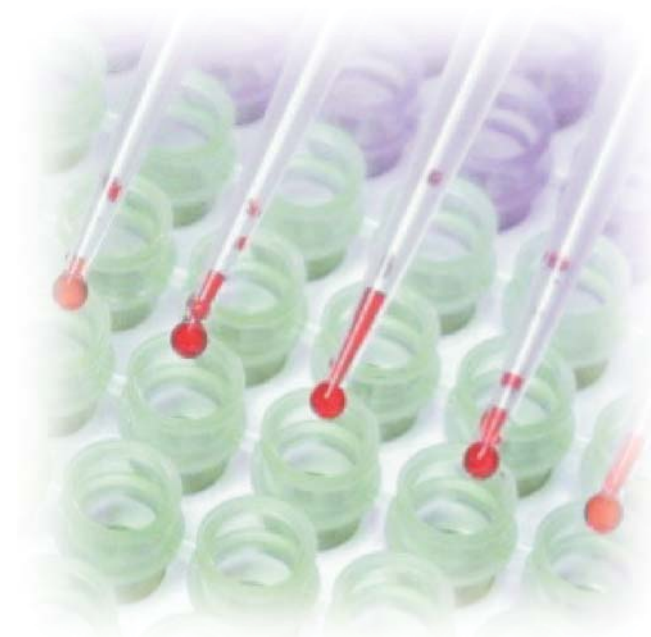
1 Assay kit contains:

- 100 ml test solution A (sufficient for determination of about 25 samples)
- each 0.5 ml standard solutions 1-5 (equivalent to 100-500 mg/l β -glucan)
- 6 cuvettes
- 1 manual
- 1 short information with practical hints

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The new β -Glucan-Analysis

Rapid Photometric Test



The Problem

β -glucans are high molecular weight substances, polysaccharides, consisting of branched and non-branched chains of linked glucose molecules. As these substances tend to form films and gels they are a serious processing problem in the brewing industry. So, they can lead to the clogging of the filters used, which are made to filter turbidity substances and yeast cells after fermentation, within a short time. Filtrations have to be interrupted, filters have to be cleaned, and the filtration has to be started anew. Especially the increased usage of microporous membrane filters is interfered with this matter of fact and creates high costs.

These filtration problems occur at β -glucan concentrations above 200 mg/l. The gel formation happens suddenly and non-predictable leading to impeded and therefore effects negatively processing stability and product safety.

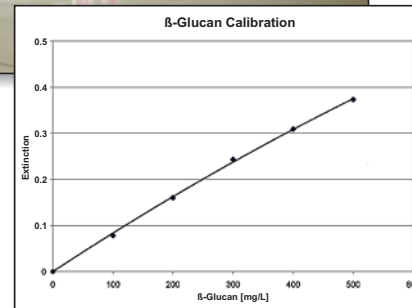
Rapid and simple analytical methods to monitor the β -glucan contents during the production process, are desirable and necessary. But until now only FIA and HPLC methods were available.



The past: expensive as well as time-consuming analysis with FIA.



The rapid β -glucan test can be implemented with any commercially available photometer.



The Solution

The NovaBiotec® Dr. Fechter GmbH has developed a photometric β -glucan Assay Kit enabling an easy to handle, quick and low-priced analysis of soluble β -glucans while offering a very good correspondence with well-known, but expensive and effort-taking measuring methods.

Our Assay Kit for the determination of β -glucan can be used with practically every UV/VIS photometer. The processing and quality control in brewing industries are considerably simplified. Potential filtration problems could be tackled in time.

And by the way: The Assay Kit is the perfect addition to our enzyme reactor equipped with immobilised β -glucanases which avoid the formation of β -glucan gels.

Your Benefits

Simple

- photometric assay principle
- no special preparation of samples
- no additional laboratory equipment

Rapid

- results after 30 min reaction time
- quasi-online process control

Efficient

- you will save about 90% of the previous analysis costs

Accurate

- very good correspondence with the FIA method recommended by the EBC as well as with HPLC-methods

3 simple steps to assay the β -glucan concentration: within 30 minutes you are able to measure all samples simultaneously

