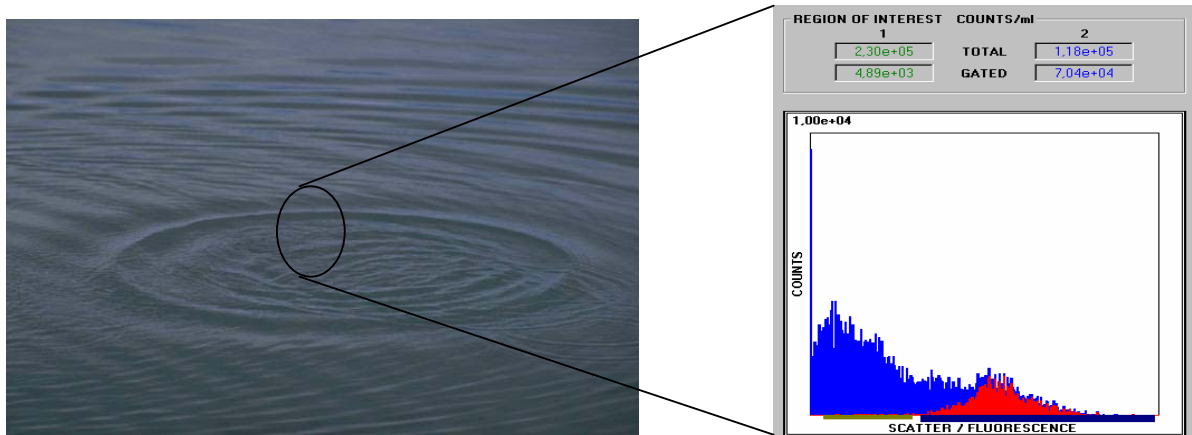


Feb. 6, 07: Application bulletin no 3.02

# Algae in water

Rapid method for detection and monitoring of algae in water



BioDETECT Rapid Detection of algae in water

BioDETECT provides a complete detection system, that within minutes reveals whether a water sample contains auto fluorescent (FL) particles\*. FL particles may be used as a surrogate indicator of protozoan parasites such as *Cryptosporidium*. The system may be used for monitoring the removal of FL particles during the various steps in a purification process of drinking water. Minimal sample preparation makes the MICROCYTE BPC well suited for integration into a online, continuous water surveillance system. The detection limit is below 10 FL particles per milliliter. Reliability—scientific method applied in health diagnostics, medicine and food production for several years.

\* Documented by Bergstedt & Rydberg - "Naturally Occurring Autofluorescent Particles as Surrogate Indicator of Sub- Optimal Pathogen Removal in Drinking Water", see [www.biodetect.biz](http://www.biodetect.biz).

**Rapid response** - 1-3 minutes on-site feedback time

**Instrument based analysis** - eliminating the risk of subjective human interpretation

**Portability** - factory aligned, 12 kg portable instrument with minimal space requirement, suitable for field work

**Real-time** - for continuous surveillance of algae in indoor and outdoor environments

**Ease of use** - one button operation and self-explaining software

**Proven technology** - with reference customers within the military, defense, food, environmental and pharmaceutical industries

## BioDETECT Instrument family

MICROCYTE<sup>®</sup> Field  
MICROCYTE<sup>®</sup> Aqua  
YEASTCYTE<sup>®</sup>

Easy to use instruments for accurate, rapid and cost effective bio-analysis for the pharmaceutical, biotech, food/beverage industry, military and universities.



MICROCYTE<sup>®</sup> Field & MICROCYTE<sup>®</sup> Aqua

The number of particles (determined from light scatter) and algae (determined from natural fluorescence) in a water sample may be quickly determined without any pre-treatment with the MICROCYTE<sup>®</sup>. Total particle counts are influenced by additives during the purification process (e.g. flocculation agents), while autofluorescent particles (algae) doesn't increase by such treatment. Thus, the number of naturally fluorescing particles in the water is an ideal parameter for monitoring the purification process.

## Procedure

### 1. Sample preparation

- Prefilter the water sample through a 100 µm mesh.

### 2. Counting

- Transfer 1 ml to an eppendorf tube.
- Vortex and count on MICROCYTE<sup>®</sup>.
- Number of algae are displayed directly as counts/ml in two specified regions of interest.

For a more detailed application note, please do not hesitate to contact us.

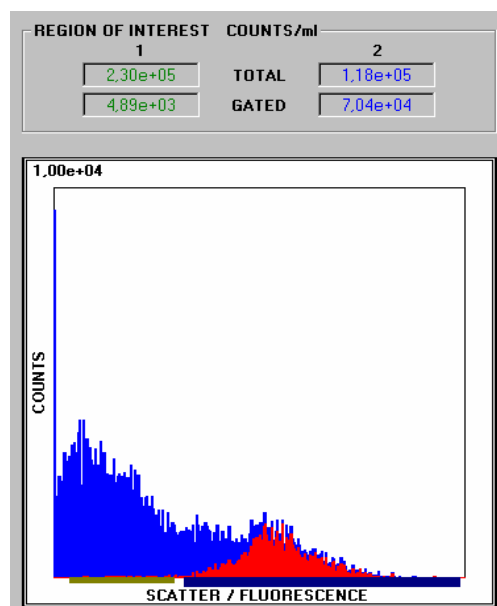
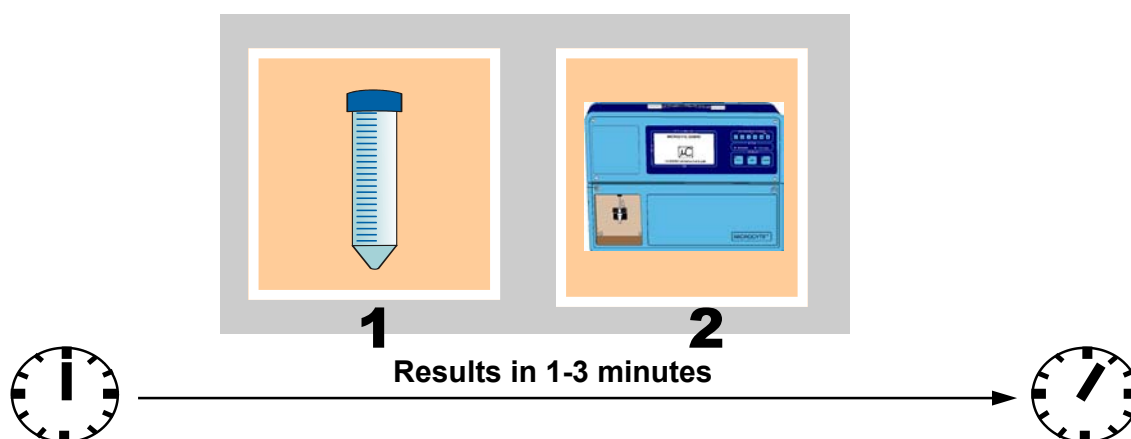


Figure 1: Algae in red



BioDETECT AS, Olaf Helsets vei 5, POB 56 Bogerud, N-0621 Oslo, Norway Phone: +47 22628152 Fax: +47 22628151

[mail@biotdetect.no](mailto:mail@biotdetect.no) [www.biotdetect.no](http://www.biotdetect.no)

BioDETECT develops, manufactures and markets instruments and kits targeted at the pharmaceutical, beverage, water, military/civil defense and OEM markets. The products aim at offering robust, rapid and accurate enumeration and analysis of microorganisms from a liquid, air or powder sample.

MICROCYTE