

Early Warning System by **rqmicro**



rqmicro AG is a spin-off from ETH Zürich that develops and markets high-performance immunoassays and innovative instruments for rapid microbial tests in water and food. Our vision is that consumers worldwide benefit from water and food which is free from microbiological contamination. A crucial step towards realizing that vision is to detect contamination in a quick and accurate way. That is why our interdisciplinary team develops ultrafast microbiological solutions on the basis of immunomagnetic separation, microfluidics and flow cytometry.



The Perfect Solution for the Complexity of Cooling Tower Samples

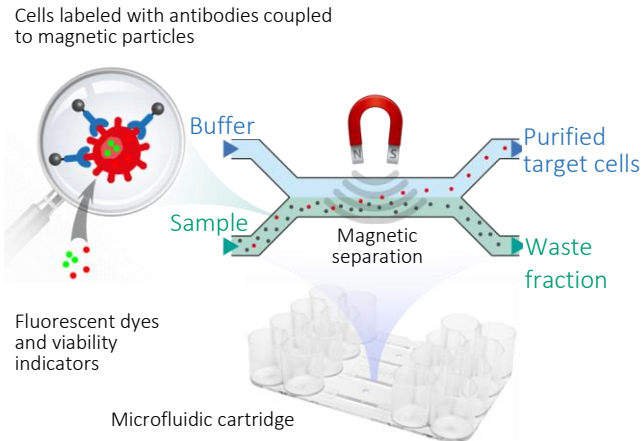
- Provides reliable, quantitative results for *Legionella* in **1-2 hours**
- Eliminates **95% to 99%** of the competing flora

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Legionella Analysis for Cooling Towers in 1 - 2 Hours

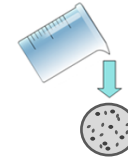




Immunomagnetic Separation & Microfluidics

The rqmicro CellStream automatically isolates and purifies *Legionella* cells labelled with magnetic particles. As the cells pass through a narrow channel on a microfluidic cartridge, they are immobilized by a magnet. At the same time more than 95% of the competing flora is directed to the waste fraction. In a final step, the *Legionella* are eluted in clean buffer. This positive fraction can be analyzed with a standard flow cytometer.

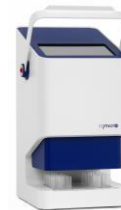
1 Concentration



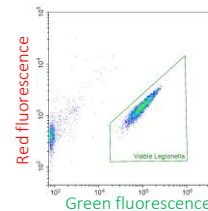
2 Labelling



3 Automatic Separation on Cartridge



4 Flow Cytometric Analysis



Reliable results
in 1-2 hours

Conclusive Results

- Reliable, quantitative results in 1 - 2 hours
- Detection of viable but non-culturable *Legionella*
- High specificity and sensitivity

Effective Monitoring

- Provides immediate process feedback
- Allows for targeted corrective measures

Risk Mitigation

- Reduced risk of outbreaks
- Saves time, cost and energy

