



-  Company
-  YeastCyte

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BioDETECT Group

- Optoflow AS
- Was established in 1993
- Office and production facilities in Oslo, Norway
- Develop and manufacture flow cytometer
- Solutions for detection of bacteria and other microorganisms
- Optoflow is a wholly-owned subsidiary of *BioDETECT*

BioDETECT Group




- *BioDETECT AS*
- Was established in December 2001
- Same office facilities as Optoflow in Oslo, Norway
- Distributors in European countries, USA and Japan
- Direct sales and marketing activities



Products



BioDETECT products

	YeastCyte®	Flow cytometer Counting live and dead cells
	Bottle and tube kit	Containers and tubes for reagents
	Reagent Kit	Reagents for counting dead and live yeast cells

Product differentiation

Market

Product	Key Market	Application	Key feature
YEASTCYTE	Breweries, wineries & ethanol manufactures	Yeast analysis Total cell count and viability	<ul style="list-style-type: none"> • Dedicated particle counter • Rapid response • Simple to operate

Technical

Product	Cabinet	Operation	Fluid system	Recommended end user Price
YEASTCYTE	Aluminium Steel	From laptop	External sheath, dye and waste containers	25K€

User interface

Product	Software	Data presentation	Display
YEASTCYTE	YC 3000	2 color histogram	No

Product differentiation

Product	Content	Price
Prod.no:3020 Bottle and tube kit	Glass and plastic bottles with tubes and column ready to connect to YeastCyte	From 765€
Prod.no:3010 Reagent Kit	Consentrate and / or ready to use liqueds for testing and running yeast samples	200€ for one set.
Prod.no:3030 Service Agreement	1 Yearly visit, with replacement of wear and tear parts, including alignment	From 1000€ , including Labour, exscl travel cost

Target market

Beverage



- Yeast viability studies
- Yeast contamination

Reference customers

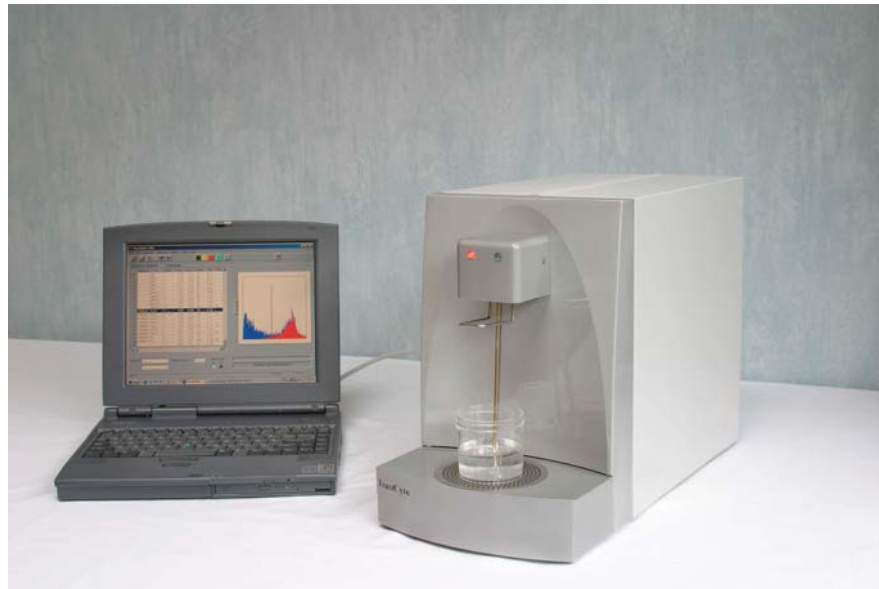
Laboratory	Contact name	Application
Ringnes AS (Member of Carlsberg group) -Oslo -Trondheim -Arendal	Tore Hage, Tore.hage@ringnes.no +47 22069500	Using YeastCyte® Yeast count and viability
Anheuser Busch Inc. -ST.Louis MO.		Using YeastCyte® Yeast count and viability
Inbev N.V./S.A. -Leuven		Using YeastCyte® Yeast count and viability
Bulmers Ltd. -Clonmel		Using YeastCyte® Yeast count and viability
Aass -Drammen		Using YeastCyte® Yeast count and viability
San Miguel -Lleida		Using YeastCyte® Yeast count and viability
Mahou S.A -Alovera		Using YeastCyte® Yeast count and viability
S.A. Damm -Barcelona		Using YeastCyte® Yeast count and viability
Katholieke Universiteit -Leuven		Using YeastCyte® Yeast count and viability

Conclusion from a practical brewery test at Ringnes, Norway (Member of Carlsberg group)

”In a single measurement the YeastCyte® gave us the total cell number with a very good correlation to electronic counting, and cell viability with very good correlation to methylene violet staining. It also gave us a substansial saving in labour compared to microscopical methods. The ruggedness of the analysis shows promise in the instrument as a trustable workhorse in routine yeast analyses. ”



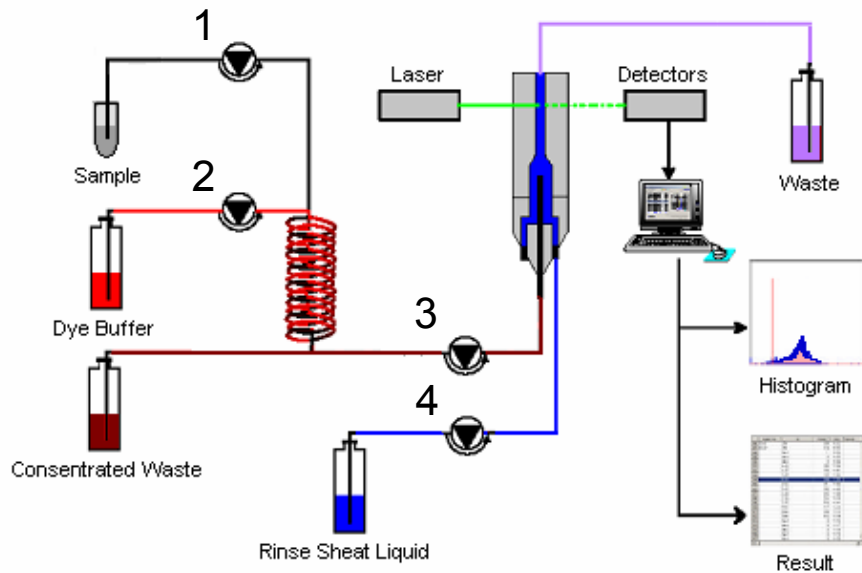
BioDETECT
YeastCyte[®]



YeastCyte[®] key characteristics

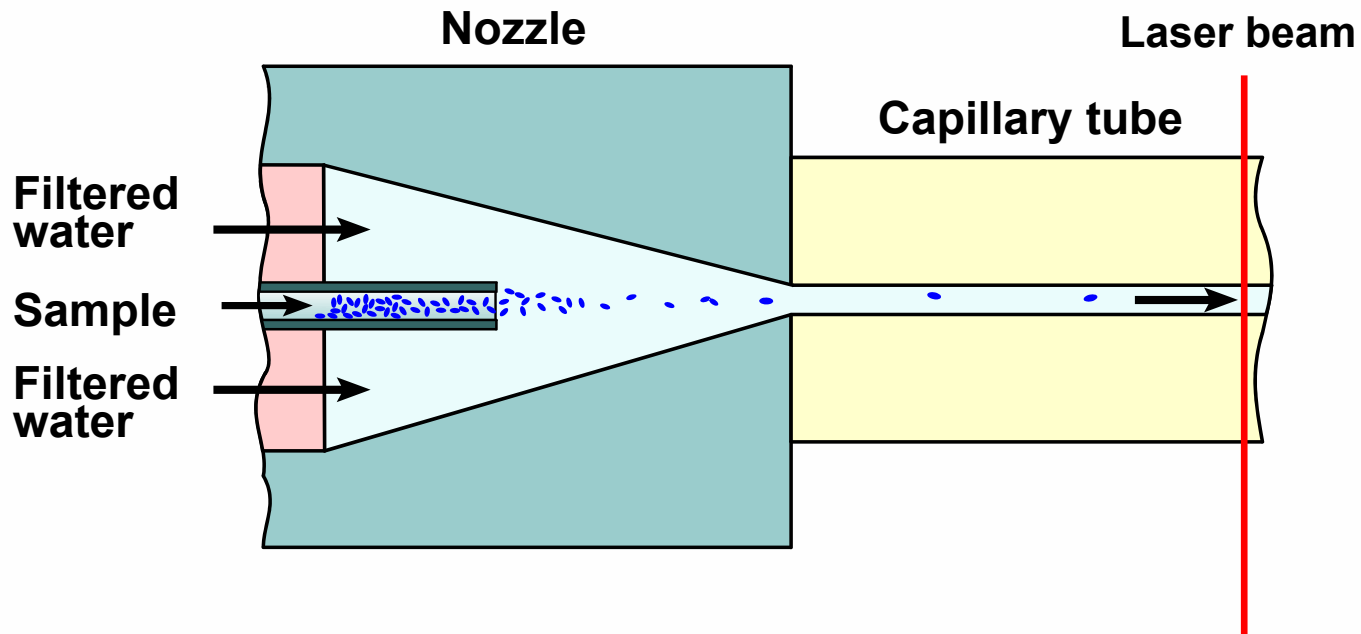
- Rapid response
- Simple to operate
- Reliability
- Instrument based analysis
- AutoStain
- AutoWash

YeastCyte[®] flow system

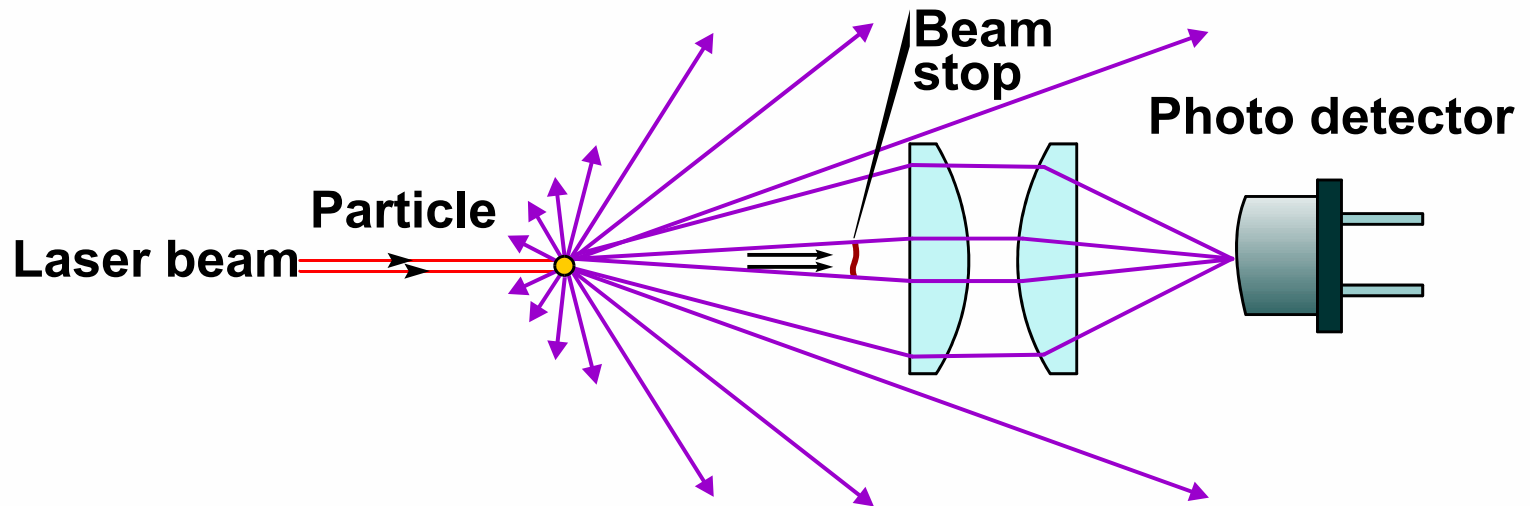


1. Sample pump
2. Reagent pump
3. Measuring pump
4. Sheath pump

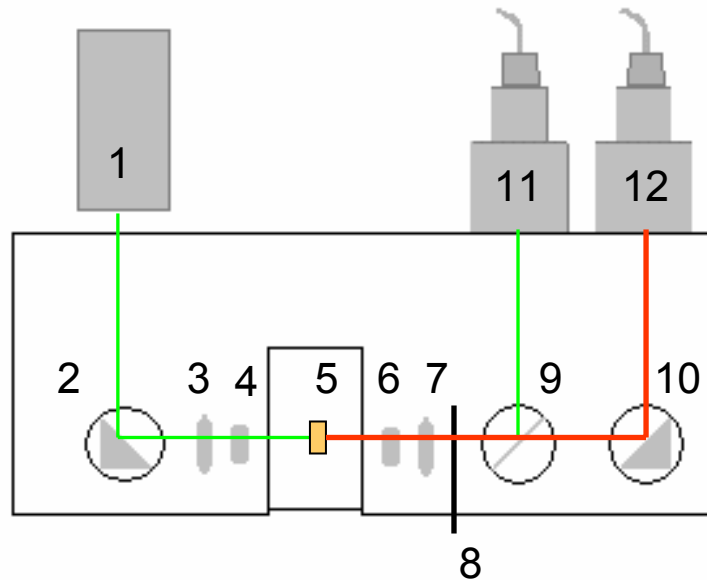
Hydrodynamic focusing



Light scatter



YeastCyte[®] optics



1. Light source (532 nm)
2. Mirror
3. Acromat
4. Cylinder lens
5. Measuring point
6. Micro lens
7. Objective
8. Beam stop
9. Beam splitter
10. Mirror
11. Light scatter detector
12. Fluorescence detector

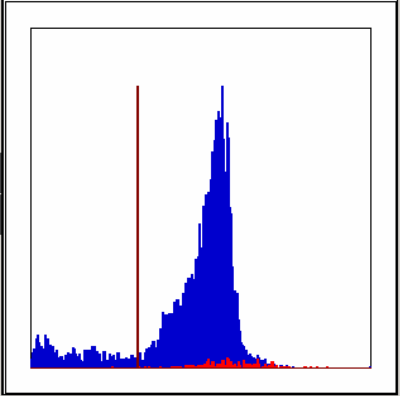
YeastCyte[®] software

YeastCyte v 0.11

File Edit Operation Calibration Options View Help

RESULTS 3/15/2004 (Mill/ml)

	Batch No.	Id	Dilution	Total	Dead	% Dead	Time	Rema
5			1:1	2.22	0.07	3	12:07	
6			1:1	2.24	0.07	3	12:08	
7			1:1	2.24	0.08	4	12:09	
8			1:1	2.31	0.08	3	12:10	
9			1:1	2.30	2.17	94	12:11	
10			1:1	2.51	2.49	99	12:12	
11			1:1	1.67	0.14	8	12:13	
12			1:1	1.63	0.07	4	12:14	
13			1:1	1.61	0.06	4	12:15	
14			1:1	1.65	0.06	3	12:16	
15			1:1	1.62	0.06	3	12:17	
16			1:1	1.66	0.05	3	12:18	
17			1:1	0.54	0.02	3	12:21	
18			1:1	0.47	0.01	3	12:22	
19			1:1	0.50	0.02	3	12:23	
20			1:1	0.50	0.02	4	12:24	
21			1:1	0.02	0.00	4	12:25	
22			1:1	0.00	0.00	5	12:25	
23			1:1	0.00	0.00	4	12:26	
24			1:1	0.51	0.02	3	13:22	
25			1:1	0.49	0.02	3	13:23	
26			1:1	0.54	0.02	3	13:24	



Batch No: Dilution Factor 1 :

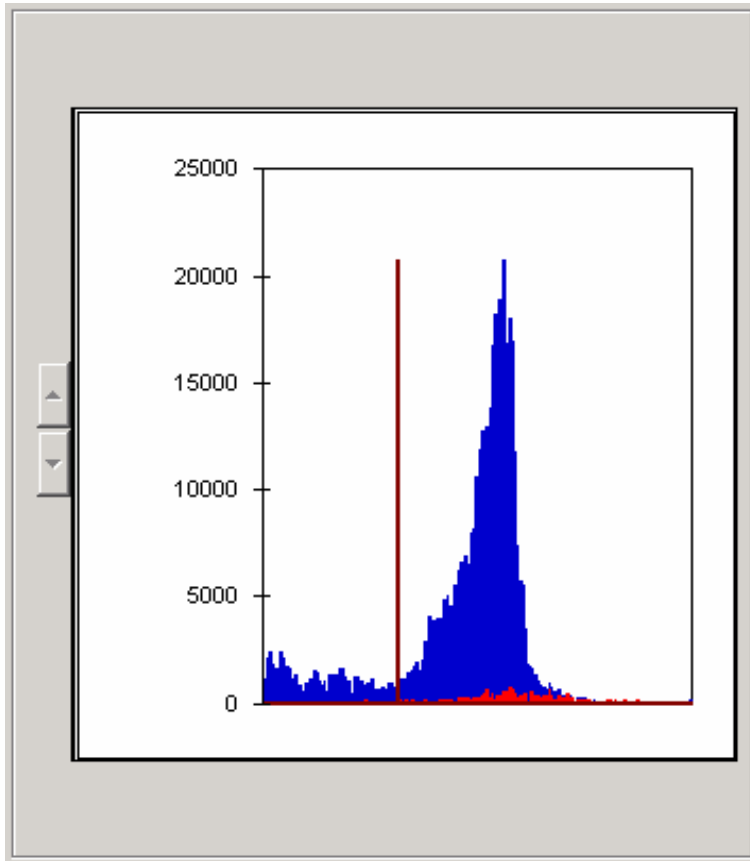
Id:

PRESSURE
LO OK

READY: INSERT SAMPLE

KANA 3/31/2004 2:12 PM

Data presentation



- Histogram
- Two colors
 - Blue - live cells
 - Red - dead cells
- Discriminator
- % Calculation

Bottle and Tube kit

YeastCyte

- Prod. no. 3020 Bottle and Tube kit
- Contains:
- **Bottle for Sheath liquid 10000ml, with tube**
- **Bottle for Low concentrate waste 10000ml, w/ tube**
- **Bottle for high concentrate waste 1000ml, w /tube**
- **Bottle for Dye solution 1000ml, with tube**
- **(optional , Column for high concentrate waste)**
-

BioDETECT AS

POB 56 Bogerud, N-0621 Oslo, Norway.

Reagent Kit

YeastCyte

- Prod. no. 3010 Reagent Kit
- Contains:
- **Solution A:** 100 ml 100 x concentrate sheath liquid
- **Solution B:** 700 ml 1 x dye solution
- **Solution C:** 50 ml 10 x concentrate cleaning solution
- **Solution E:** 100 ml 1 x test particle 5 mycron
- Batch no. YCnnn
- Store at 4°C. Expires mm-yyyy
- *For research use only.*

BioDETECT AS,
POB 56 Bogerud, N-0621 Oslo, Norway.

Service Agreement

- 1 Yearly visit at site or instrument back to factory
- Free technical support
- Free update of software

- A complete service agreement document can be seen at www.biodetect.no



Thank you for listening

For more information please visit www.biodetect.no