OCULYZE
better brewing

QUICK GUIDE

Oculyze BB can be used on any PC or modern iPad with our WebApp (**webapp.oculyze.net**) or on android mobile devices using our Android App (available in the Play Store). Please log in with your user account before starting.

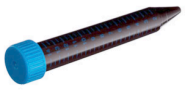
microscope

cables

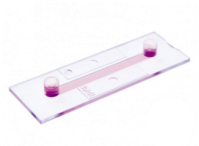
measuring cylinder

pasteur pipette

reaction tube



methylene violet



sample chamber

syringe

cleaning bellows

cleaning swab

1. DILUTION

Note that based on the density of your yeast sample, more or less dilution will be needed. If measuring during an ongoing fermentation, dilution is often not necessary. For highly concentrated yeast at inoculation or repitching a 1:100 dilution is a good starting point. We will use a 1:100 dilution in this example:

What you will need: measuring cylinder, water, pasteur pipette, a yeast sample from your fermenter or propagator

Step 1: fill your measuring cylinder with 99 ml of water
Step 2: fill your pasteur pipette with 1 ml of yeast and empty it into the measuring cylinder
Step 3: run the solution in and out of the pipette three times to make sure it is completely empty
Step 4: take the pasteur pipette and stir vigorously – now it's diluted!

2. STAINING (only required when measuring viability)

What you will need: diluted yeast sample, pasteur pipette, reaction tube, methylene violet

Step 1: fill the pasteur pipette with 0.5 ml of your diluted yeast sample
Step 2: take the 0.5 ml of the diluted yeast sample and put it into the reaction tube
Step 3: take 0.5 ml of the methylene violet solution and put it into the reaction tube
Step 4: run the mixture through the pipette a few times

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3. LOADING THE CHAMBER

What you will need: diluted (and stained) yeast sample, pasteur pipette, sample chamber

Step 1: fill the pasteur pipette with a small amount of your diluted (and stained) sample
Step 2: pipette the sample into either one of the chamber openings
Step 3: let the capillary forces pull the sample through the chamber
Step 4: leave it for approx. 5 minutes to let the yeast cells settle and the staining react

4. MEASURING

What you will need: microscope, computing device, chamber loaded with diluted (and stained) yeast sample

Taking the images

Step 1: connect the microscope via cable to your computing device and open the BetterBrewing app
Step 2: put the chamber into the microscope and slide it up to its first marking
Step 3: choose in the app whether you want to conduct a single measurement or track an entire fermentation and if you want to perform an analysis with or without viability
Step 4: now adjust the focus wheel of the microscope until you see a sharp image on your computing device
Step 5: take the picture and click “keep” to add the image to the analysis
Step 6: release the focus wheel a bit to move the chamber to the next marking to take the next image
Step 7: repeat the steps above to take 5 images

Performing the analysis

Step 1: after you took 5 images, enter a name for your sample (date & time are filled automatically)
Step 2: enter the ratio for dilution and staining (in this example this would be 1:99 and 1:1)
Step 3: add a comment if you like, i.e. sample origin, yeast type, generation of yeast, etc.
Step 4: click “next” to perform the analysis and to review your results

5. CLEANING THE CHAMBER (should be done shortly after the analysis)

What you will need: dirty chamber, distilled water, syringe, bellows, paper tissue

Step 1: fill the syringe with distilled water and rinse the chamber with it
Step 2: use the cleaning bellows to gently blow air through the chamber
Step 3: use the paper tissue to collect the remaining water from the chamber openings
Step 4: (optional) repeat step 1 to 3 with diluted detergent if water doesn't clean it well enough

Support:

success@oculyze.net
+49 151 / 6171 7961

Oculyze Automation GmbH, Regattastr. 183, 12527 Berlin, Germany

digital version
- different languages -

how-to video