PIKA FastOrange® BRETT Enrichment Bottles

Enrichment bottles for the detection of Dekkera sp. (Brettanomyces)

Cat. No. 2037-11

Description	Amount	Storage
Enrichment medium in single use sample bottles for the detection of Dekkera (Brettanomyces) yeasts.	15 x 40 mL in cell culture flasks	Store dark at room temperature

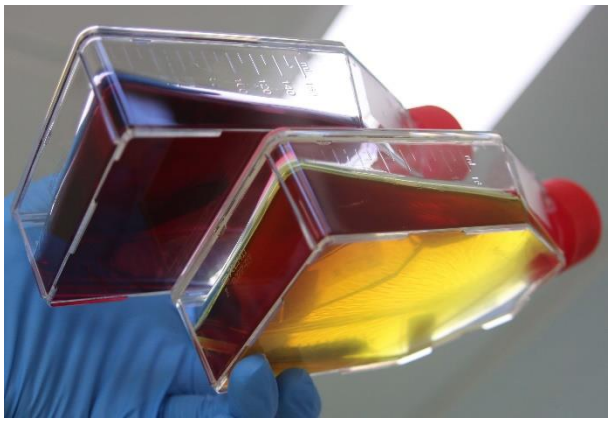
Warning! Read the manual and the Safety Data Sheets before starting the analysis. Safety Data Sheets are available in the download area from www.pika-weihenstephan.com. All handling steps should be performed under sterile conditions. Wear appropriate protective clothing

For *in vitro* use only.

Product description

PIKA FastOrange® BRETT Enrichment bottles are sterile single use flasks which are prefilled with an enrichment medium concentrate. They are easy to use and can be applied directly at the sampling point.

PIKA FastOrange® BRETT Bouillon is a culture medium developed for enrichment of samples from breweries and wineries.
Dekkera (Brettanomyces) yeasts are easily detected by a color change of the culture medium from violet to yellow. Additionally, turbidity and often sediment formation is observed.
For a general detection of yeasts and molds we recommend FastOrange® Yeast Bouillon (Cat. No. 2038-1).



Detectable microorganisms

Microorganism	Growth conditions
Dekkera (Brettanomyces) Yeasts	aerobic and anaerobic
Other cycloheximide tolerant yeasts may grow in FastOrange® BRETT Bouillon, too, but usually these do not always produce a color change of medium to yellow.	aerobic and anaerobic

Growth of brewer's yeast and winery yeast as well as of most other yeasts is suppressed.

Guidelines for use

Depending on the sample type, the following procedures are recommended:

A. Clear samples (e.g. beer, water, filtered samples)

1. For optimal color change, add 40 mL of sample into a bottle and mix. The final concentration of the medium is then 50%. The sample doesn't need to be accurately measured, it is sufficient to pour it and visually check the volume with the scale on the sample bottle.
2. Lower broth concentrations than 50% may be used, but will result in a decreased visibility of color change. Besides, the effect of inhibitors in the enrichment might be reduced so besides the target microorganisms, other yeasts as well as bacteria might grow, too. Their replication would cover growth of Dekkera species so Dekkera even could be not visible. Below a broth concentration of 30%, color change may not occur, but growth can still be monitored by turbidity and/or sediment formation. Compared to 50% broth concentration, time to visible growth may be prolonged if using lower end concentrations.

B. Yeast containing samples (e.g. fermenter sample or turbid sample)

1. For an optimal color change, add 30-40 mL of sample into a bottle and mix.
   Important! We strictly do NOT recommend using less than 50% final broth concentration for this sample type, otherwise growth of non-Dekkera yeast will not be sufficienty inhibited. Besides, the color change may become hard to detect or not detectable.

   When analyzing colored samples or samples with pH value below 4.5, color change may appear direct with the addition of sample. In this case, evaluation has to be done by turbidity and/or sediment formation only.

Incubation conditions

Incubate the enriched samples in a horizontal position to increase oxygen supply. Additionally open the lid slightly to allow the release of potentially built gas.

Attention! In case of adding more than 40 ml of sample per enrichment bottle, the bottle would leak during horizontal incubation. Therefore, the bottle has to be incubated upright in this case.

Samples are incubated at 25 ± 2°C for the following intervals:

Analysis method	Incubation time
PCR	4-7 days
Visual evaluation	5-10 days

Results of visual evaluation

Sample type	Samples are regarded as positive if:
All samples	1. Increasing turbidity and/or sediment formation 2. In case of acid producing microorganisms: color change from violet-brown to yellow 3. Especially sediment shows yellow color

We recommend

1. Microscopic examination and / or PCR analysis to verify the presence of beer spoiling bacteria in positive enrichments.
2. Serial enrichment in case of direct color change immediately after mixing of sample and medium
3. Verification of liquid enrichments can be achieved by second enrichment on pour plates or by streaking out an aliquot on Agar plates
4. We recommend the use of FastOrange® BRETT Agar.

Growth of rare Chloramphenicol resistant bacteria may appear.

General information

Store the product in the dark at room temperature (max. 25°C). Cooling below 25°C is NOT necessary.
Due to manufacturing, slightly differences in color of culture medium may occur within bottles. This is NOT influencing product quality.
Best before date for unopened product is given on the outer label. After opening we cannot guarantee for shelf life.
The product is not suitable for human or animal consumption. It must not be used for the direct propagation of microorganisms which later are used for food production or might get into contact with food.

FastOrange® BRETT Products

BRETT Bouillon	(12 x 240 mL)	SKU 2037-1
BRETT Agar	(12 x 170 mL)	SKU 2037-2
BRETT Tubes 48-pack	(48 x 5 mL)	SKU 2037-10
BRETT Enrichment Bottles	(15 x 40 mL)	SKU 2037-11
BRETT Tubes 24-pack	(48 x 5 mL)	SKU 2037-15

PCR Detection Kits Y

Different PCR Detection kits for Screening and identification of Dekkera (Brettanomyces) species are available. Depending on the real time PCR instrument, we offer different product lines containing different PCR tubes:
4e® Detection Kit 100 µL, clear, low profile
TM Detection Kit 200 µL, frosted, skirted

Product line	Product name	SKU
4e®Detection Kit	Dekkera (Brettanomyces) sp. Screening	2402-20
4e®Detection Kit	Dekkera (Brettanomyces) bruxellensis	2402-54
4e®Detection Kit	Dekkera (Brettanomyces) anomala	2402-55
4e®Detection Kit	Dekkera (Brettanomyces) naardenensis	2402-56

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