User manual

BAT-Agar (Product No. 2.04719.782)

1. Application

Nutrient media for the detection of
Alicyclobacillus spp.
in the beverage and fruit compound industry.

BAT-Agar (pH 4.0 +/- 0.1) is an agar which, in combination with the BAT-Broth and Guaiacol Detection Kit, is a fast, reliable, sensitive and cost-efficient method for analysis of *Alicyclobacillus* even in complex products and is compliant to the IFU Method "Method on Detection of taint producing *Alicyclobacillus* in Fruit Juices" (IFU Method No.12.) *Alicyclobacillus* can spoil beverages by creating an off-flavour. Its spores can survive normal pasteurisation treatments and may be activated and grow in favourable conditions after a few weeks. Use the BAT-Agar as a nutrient media for bacterial smear.

2. Handling

Required Material
Double boiler (temp 95°C/200°F)
BAT-Broth (Product No. 2.04719.782) for cold filled ready-to-use drinks
PCA Plate-Count-Agar (e.g. DEV.Nutrient Agar (Product No. 2.04726.782))
microbiological workbench
Petri dish
inoculation loop for bacterial smear
incubator

Implementation
Handle the samples under sterile conditions to avoid secondary contamination.

Liquefy the nutrient media (BAT-Agar and Plate-Count-Agar) in a double boiler at max 95°C/200°F. Cool it slowly for use to approx. 45°C/113°F. Pour the nutrient media into Petri dishes (keep the different Agars separated) to a height of 3-4 mm. Cool the dish until the Agar solidifies.

For cold filled ready-to-use drinks and compounds:
Pour 0,1ml of the enriched bacterial culture each (see BAT-Broth specifications) onto the surface of the pre-poured BAT-Agar (pH 4) and a Plate-Count-Agar (pH 7). Spread with a sterile inoculation loop.

For hot filled ready-to-use drinks:
Pre-incubate the product in the original package at 45°C/113°F for 7 days to obtain a bacterial enrichment.
Pour 0,1ml of the enriched product onto the surface of the pre-poured BAT-Agar (pH 4) and a Plate-Count-Agar (pH 7). Spread with a sterile inoculation loop.

Incubation
Place the test sample (stored in a plastic bag to avoid drying) in an incubator for max. 3 days at a temperature of 45°C/113°F. Breed in aerobic conditions.

Version 2.1, 28 November 2011
this version replaces all previous versions.

Evaluation

Evaluate the samples. A lack of bacterial growth on the BAT-Agar indicates a negative result for *Alicyclobacillus*.

With a positive growth of rods on BAT-Agar please check the PCA for further results. If there is no visible bacterial growth on the PCA the result for *Alicyclobacillus* is positive.
If you find a growth of rods on the Plate-Count-Agar the result is *Alicyclobacillus* negative. The growth of *Alicyclobacillus* spp. at pH7 is not possible (fig.1).

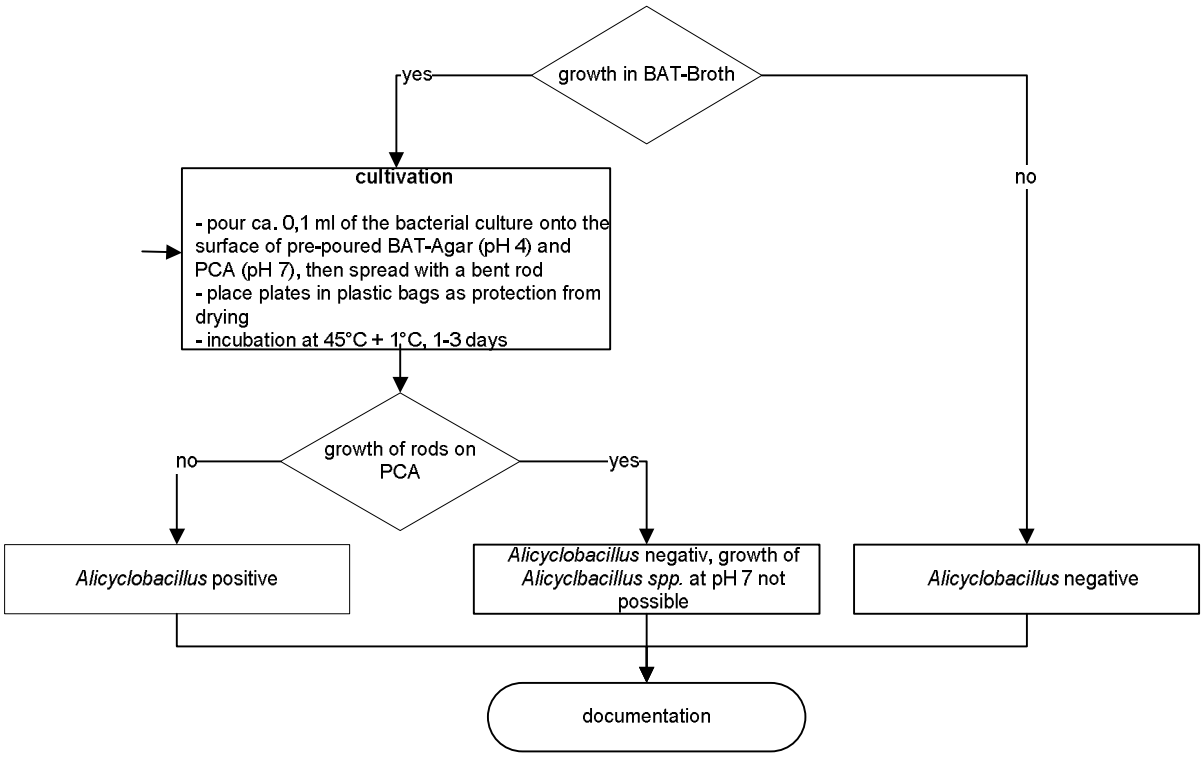

Fig. 1 Evaluation of BAT-Agar

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3. Storage and packaging Information

Packaging and Content

unit	Cardboard Box (9x250ml bottles)
unit size (Box)	approx. 22cm x 22cm x 18cm / 8,7in x 8,7in x 7,1in
unit gross weight (Box)	approx. 4,1 kg/ 9 lbs.

Storage

Store at 4-8°C/40-45°F according to product specification.
Store under dry and dark conditions. Do not freeze product.

Waste Disposal

No dangerous good.
No hazardous material.
Please consider your local waste regulations.
Uninoculated agar can be disposed of with normal laboratory waste.
Inoculated and incubated samples are to be sterilized before disposal at a temperature of 250°F / 121°C and a holding time of 20 minutes.

Warnings

Don't cook or freeze the nutrient media. Heating can restrain its functionality.
Always wear protective equipment when handling with hot media.
Never firmly close a fermenting sample. Bottle may explode.

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