



OXYTETRACYCLINE GLUCOSE AGAR (OGA)

INTENDED USE

Oxytetracycline Glucose Agar is used for the detection and enumeration of yeasts and molds in food products and cosmetics.

HISTORY

In 1965, Buttiaux and Catsaras recommended the use of this medium for the detection of yeasts and molds in beer. Subsequently, Sainclivier and Roblot recommended it for the analysis of butter. Mossel also showed that neutral pH led to a better recovery than acid pH medium with several types of foods (pH being the only selective mechanism against the growth of bacteria in this particular medium).

PRINCIPLES

- The growth of yeasts and molds is favored by the presence of glucose and yeast extract.
- The addition of oxytetracycline or chloramphenicol, or chloramphenicol + gentamicin, or oxytetracycline + gentamicin just before use inhibits most bacteria, including lactobacilli (acidophilic bacteria which may be the dominant flora in certain food products).

PREPARATION

- Suspend 40.0 g of dehydrated base medium (BK053) in 1.1 liters of distilled or deionized water.
- Slowly bring to boiling, stirring with constant agitation until complete dissolution.
- Dispense 110 mL per 150 mL flask.
- Sterilize in an autoclave at 121°C for 15 minutes.

INSTRUCTIONS FOR USE

- With the ready-to-melt base medium BM022 (or if the media has been prepared in advance from the dehydrated powder, as above), melt the agar for the minimum amount of time necessary to achieve total liquefaction.
- Cool and maintain at 44-47°C.
- Under aseptic conditions, add 1.0 mL of restored Oxytetracycline 50 mg Selective Supplement (BS008) to each flask containing 110 mL of base.
- Mix well.
- Transfer 1 mL of the product to analyze and its serial tenfold dilutions to sterile Petri dishes.
- Pour 10 to 15 mL of complete medium.
- Homogenize by swirling.
- Let solidify on a cold surface.
- Incubate at 25°C for 3 to 5 days, depending on the analytical protocol.

NOTE 1 :

Sample inoculation on the surface of previously poured plates can also be done.

NOTE 2 :

Oxytetracycline (BS008) can be replaced by Chloramphenicol (BS021) or Chloramphenicol + Gentamicin (BS021 + BS009) combination or can be supplemented with Gentamicin (BS009) alone. Refer to corresponding monographs and norms concerning the products to analyze.

RESULTS

After incubation separately count yeasts and molds. Carry out a rapid microscopic confirmation test for each type of colony found.

TYPICAL COMPOSITION of the complete medium with Oxytetracycline

(can be adjusted to obtain optimal performance)

For 1.1 liter of medium :

- Yeast extract5.0 g
- Glucose20.0 g
- Oxytetracycline.....0.10 g
- Bacteriological agar 15.0 g

pH of the ready-to-use medium at 25°C : 6.6 ± 0.2.

QUALITY CONTROL

- Dehydrated medium : beige powder, free-flowing and homogeneous.
- Prepared medium : amber agar.
- Typical culture response after 72 hours of incubation at 25°C on complete medium with oxytetracycline :

Microorganisms		Growth (Productivity ratio : P_R)
<i>Saccharomyces cerevisiae</i>	ATCC® 9763	$P_R \geq 50\%$
<i>Candida albicans</i>	ATCC 10231	$P_R \geq 50\%$
<i>Aspergillus brasiliensis</i>	DSM 1988	$P_R \geq 50\%$
<i>Escherichia coli</i>	ATCC 25922	inhibited
<i>Bacillus subtilis</i>	ATCC 6633	inhibited

STORAGE / SHELF LIFE

Dehydrated base medium : 2-30°C.

- The expiration date is indicated on the label.

Prepared medium (benchmark value*) :

- Base media in vials : 6 months at 2-8°C.
- Complete media in plates : 15 days at 2-8°C.

**Ready-to-melt base media in vials,
Oxytetracycline Selective 50 mg Supplement,
Gentamicin 25 mg Selective Supplement,
Chloramphenicol 50 mg Selective Supplement :**

- Store between 2-8°C, shielded from light.
- The expiration dates are indicated on the labels.

PACKAGING

Code

Ready-to-use base media in vials (without Oxytetracycline) :

- 10 x 110 mL

BM02208

Dehydrated base medium (without Oxytetracycline) :

- 500 g bottle
- 5 kg drum

BK053HA

BK053GC

Oxytetracycline 50 mg Selective Supplement :

- 10 vial pack

BS00808

Gentamicin 25 mg Selective Supplement :

- 10 vial pack

BS00908

Chloramphenicol 50 mg Selective Supplement :

- 10 vial pack

BS02108

PHOTO SUPPORT

Product reference : [BK053HA, GC + BS00808], [BM02208 + BS00808]

Media used for : Detection and enumeration of yeasts & molds in food products / cosmetics.



Aspergillus niger (individual colony)

Oxytetracycline Glucose agar

Ref : **BM02208 + BS00808**

Incubation : 3 days / 25°C

Characteristics : Good growth and sporulation of molds & yeasts with inhibition of most bacteria.

BIBLIOGRAPHY

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*Benchmark value refers to the expected shelf life when prepared under standard laboratory conditions following manufacturer's instructions. It is provided as a guide only and no warranty, implied or otherwise is associated with this information.

The information provided on the package take precedence over the formulations or instructions described in this document.

The information and specifications contained in this technical data sheet date from 2010-01-12.

They are susceptible to modification at any time, without warning.

Code document : BK053/A/2002-11 : 6.