

BARNES AGAR BASE

Selective basal medium for fecal streptococci isolation and identification

TYPICAL FORMULA (g/l)

Tryptone.....	10.0
Yeast Extract.....	10.0
Thallium Acetate.....	1.0
Dextrose Anhydrous.....	10.0
Agar.....	14.0
Final pH 6.0 ± 0.2	

DESCRIPTION

BARNES AGAR BASE is a selective medium for fecal streptococci isolation and presumptive identification.

PREPARATION

Suspend 45.0 g of powder in 990 ml of distilled or deionized water. Heat and gently agitate until completely dissolved. Sterilize in autoclave at 118°C for 15 minutes. Cool to 45-50°C and aseptically add 10 ml of TTC 1% supplement (Code 80300). Mix well. Dispense in petri dishes.

PRINCIPLE

Tryptone and yeast extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Dextrose is the fermentable carbohydrate providing carbon and energy. Thallium acetate inhibits the growth of gram positive bacteria, except the group D streptococci. Bacteriological agar is the solidifying agent. Triphenyl-tetrazolium Chloride (TTC) supplement added to the medium allows the identification of the different streptococci belonging to group D.

TECHNIQUE

The sample to examine is inoculated, diluted if it is the case, on the surface of well dry plates and incubated at 36 ± 1°C for 24 hours. On BARNES AGAR BASE Streptococci may cultivate with colonies of 3 different types:

1. white or very light pink (*Enterococcus faecium*, *Enterococcus bovis*);
2. with dark red center and white ring (*Enterococcus faecalis*);
3. uniformly red (*Streptococcus lactis* and other species of group N).

INTERPRETATION OF RESULTS

Observe the presence of *Streptococcus* spp. colonies and confirm with further biochemical tests.

STORAGE

10-30°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

WARNING AND PRECAUTIONS

The product is not classified as hazardous by current legislation and does not contain harmful substances in concentrations of ≥1%. The product is designed for *In vitro* diagnostic use and must be used only by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

1. Barnes, E. M. 1956. Methods for the isolation of faecal streptococci (Lancefield group D) from bacon factories. J. Appl. Bacteriol. 19:193-203.
2. Barnes, E. M. 1956. Tetrazolium reduction as a means of differentiating *Streptococcus faecalis* from *Streptococcus faecium*. J. Gen. Microbiol. 14:57-68.
3. ICMSF. 1978. Microorganisms in foods 1: Their significance and methods of enumeration represents a major step in establishing a common understanding of, and developing standard methods for, important foodborne microorganisms. 2nd ed. (reprinted 1982, 1988 with revisions).



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PRODUCT SPECIFICATION

NAME

BARNER AGAR BASE

PRESENTATION

Dehydrated culture medium

STORAGE

10-30°C

PACKAGING

Code	Content	Packaging
610156	500 g	500 g of powder in plastic bottle
620156	100 g	100 g of powder in plastic bottle

pH OF THE MEDIUM

6.0 ± 0.2

USE

BARNES AGAR BASE is a selective medium for fecal streptococci isolation and presumptive identification

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Powder medium

Appearance: homogeneous

Colour: light beige

Prepared medium

Appearance: clear

Colour: light amber

SHELFLIFE

2 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control
7 days at 25 ± 1°C, in aerobiosis
7 days at 36 ± 1°C, in aerobiosis
- Microbiological control
Inoculum for productivity: 10-100 UFC/ml
Inoculum for selectivity: 10⁴-10⁵ UFC/ml
Inoculum for specificity: ≤10⁴ UFC/ml
Incubation Conditions: 18-24 h at 37 ± 2°C, in aerobiosis

Microorganisms		Growth	Features
<i>Escherichia coli</i>	ATCC 25922	Inhibited	
<i>Streptococcus pyogenes</i>	ATCC 19615	Inhibited	
<i>Staphylococcus aureus</i>	ATCC 25923	Inhibited	
<i>Enterococcus faecalis</i>	ATCC 19433	Good	Red colonies

TABLE OF SYMBOLS

 Batch code	 <i>In vitro</i> Diagnostic Medical Device	 Manufacturer	 Use by	 Fragile, handle with care
 Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult accompanying documents	 Do not reuse



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