

Product Name : Barnes Agar Base

Selective medium for faecal *streptococci* isolation and presumptive identification.

TYPICAL FORMULA (G/L)

Tryptone 10.0
Yeast Extract 10.0
Thallium Acetate 1.0
Glucose 10.0
Agar 14.0
Final pH = 6.0 ± 0.2 at 25°C.

DIRECTIONS

Suspend 45.0 G of powder in 990 mL of distilled or deionized water. Heat until completely dissolved. Sterilize in autoclave at 118°C for 15 minutes. Cool to 45-50°C. Aseptically add 2 vials of TTC 1% supplement. (MB-T1867). Mix well. Dispense in petri dishes.

TTC 1% supplement

1 Vial contents (each vial is sufficient for 500 mL of medium)
Triphenyltetrazolium Chloride.....50.0 mg

DESCRIPTION

Barnes Agar Base is a selective medium for faecal *streptococci* isolation and presumptive identification.

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 centre and white ring (*Enterococcus faecalis*);
3. uniformly red (*Streptococcus lactis* and other species of group N).

QUALITY CONTROL

Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: light beige.

Prepared medium

Appearance: clear.

Color: light amber.

Incubation conditions: 36 ± 1°C / 24 hours.

Microorganism	ATCC	Growth	Characteristics
<i>Escherichia coli</i>	25922	none	
<i>Staphylococcus aureus</i>	25923	none	
<i>Enterococcus faecalis</i>	19433	good	red colonies

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PERFORMANCE AND LIMITATIONS

Thallium acetate inhibits the growth of Gram-positive bacteria, except the group D *streptococci*. TTC present in the medium allows the identification of the different streptococci belonging to group D; it is, in fact, reduced to red formazan only by some species and the reducing activity among the different species is variable.

STORAGE

The powder is very hygroscopic: store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-6°C.

REFERENCES

1. Barnes. (1956) J. Appl. Bact., 19, 193-203.
2. Barnes. (1956) J. GM. Microbiol., 14, 57-68.
3. ICMSF (1978) – Microorganisms in Foods: their significance and methods of enumeration, 2nd ed.

PACKAGING

Cat. No : MB-B1156 Barnes Agar Base	500 G
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