

TM 1998 – BYE AGAR

INTENDED USE

For the cultivation of Mycoplasma or Pleuropneumonia like organisms and L-forms of bacteria.

PRODUCT SUMMARY AND EXPLANATION

Mycoplasmas (mollicutes) are the smallest free-living microorganisms. Earlier Mycoplasmataceae were given the general title of pleuropneumonia like organism (PPLO), because of similarities to Mycoplasma mycoides (subsp. mycoides), the causative agent of bovine pleuropneumonia. BYE media are simple media developed for cultivation and routine studies of distribution, habitat and possible pathogenesis of Mycoplasma - Pleuropneumonia like organisms and L-forms of bacteria by Barile, Yaguchi and Eveland. These media can be used for isolation of PPLOs from urethritis, penile ulcerations and cervical specimens and L-forms of Corynebacterium, Neisseria, and Streptococcus. These are also used for detecting PPLO contamination of tissue culture and cell-lines and for membrane filter work.

Inoculations are made in duplicates. One set is incubated aerobically while the other anaerobically for 48 hours or more. Usually growth occurs within 3-5 days; however, negative results are reported after 10 days. Anaerobic conditions are most important for the first 3 days while secondary transfers can be incubated aerobically.

COMPOSITION

Ingredients	Gms / Ltr	
Proteose peptone	10.000	
Calf brain, infusion from	200.000	
Beef heart, infusion from	250.000	
Dextrose	2.000	
Sodium chloride	5.000	
Disodium phosphate	2.500	
Yeast extract	2.000	
Agar	13.000	

PRINCIPLE

BYE Agar contains brain and heart infusion along with yeast extract, which provide carbon, nitrogen, vitamins and other growth factors required for the metabolism of Mycoplasma - Pleuropneumonia like organisms.

INSTRUCTION FOR USE

- Dissolve 52 grams in 850 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 50°C and aseptically add 150 ml of sterile human or animal blood or serum.
- Mix gently and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.

: Yellow coloured, clear to slightly opalescent gel forms in Petri plates. Appearance of prepared medium

: 7.9±0.2 pH (at 25°C)









INTERPRETATION

Cultural characteristics observed after incubation with added serum under humidified anaerobic conditions.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Mycoplasma bovis	25523	50-100	Good-luxuriant	>=50%	35-37°C	5-10 Days
Mycoplasma gallinarium	19708	50-100	Good-luxuriant	>=50%	35-37°C	5-10 Days
Mycoplasma pneumoniae	15531	50-100	Good-luxuriant	>=50%	35-37°C	5-10 Days
Streptococcus pneumoniae	6303	50-100	Good-luxuriant	>=50%	35-37°C	5-10 Days

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

- 1. Murray P.R., Baron E. J., Pfaller M.A., Tenover F.C., Yolken R.H.(Eds.),1995, Manual of Clinical Microbiology, 6th Ed., ASM Press.
- 2. Collee J.G, Fraser A.G., Marmion B.P., Simmons. A (Eds.), 1996, Mackie and McCartney Practical Medical Microbiology, 14th Ed, Churchill Livingstone.
- 3. Barile, Yaguchi, Eveland, 1958, Am. J. Clin. Path. 30:171.
- 4. Barile, 1962, National Cancer Institute Monograph, No.7: 5.5. Barile, 1962, J. Bacteriol., 83:430



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.















*For Lab Use Only Revision: 08 Nov., 2019









