TM 2096 – FRISS SOLID MEDIUM BASE

INTENDED USE

For the detection of non-avian Mycoplasmas in pharmaceutical products in accordance with European pharmacopoeia.

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. Although some species are normal human respiratory tract flora, Mycoplasma pneumonia is an important cause of pneumoniae and a major cause of respiratory disease. *Mycoplasma hominis, Mycoplasma genitalium* and *Ureaplasma urealyticum* are important colonizers (and possible pathogens) of the human genital tract. This medium is recommended by European pharmacopoeia for the detection of non-avian mycoplasma. The optimum growth conditions are 35-38°C under microaerophilic conditions.

COMPOSITION

Ingredients	Gms / Ltr
Sodium chloride	0.800
Magnesium sulphate, heptahydrate	0.010
Magnesium chloride, hexahydrate	0.010
Calcium chloride, anhydrous	0.014
Dipotassium hydrogen phosphate, anhydrous	0.060
Potassium chloride	0.400
DEAE- dextran	0.100
Agar	7.830

PRINCIPLE

This medium contains Proteose peptone, peptone, yeast extract, calf brain infusion from and beef heart infusion from powder which provide nitrogen, vitamins, amino acids and carbon sources. Sodium chloride maintains the osmotic balance. Many Mycoplasma require serum which is supplemented by horse serum and swine serum in the medium for their good growth. The presence of antibiotic is necessary to prevent the growth of contaminating organisms. Mostly the Mycoplasma species are aerobic or facultatively anaerobic but some are microaerophilic. Sodium chloride maintains the osmotic balance. Phosphates buffer the medium. Other inorganic salts supply the necessary ions. DEAE -Dextran enhances the growth of some Mycoplasma species on Agar medium.

INSTRUCTION FOR USE

- Dissolve 8.8 grams in 100 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C. Aseptically add 870 ml of Friss Liquid media.
- Mix well and dispense as desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light yellow coloured clear to slightly opalescent gel.
pH (at 25°C) : 7.4 ± 7.45

INTERPRETATION

Cultural characteristics observed after addition of 100 ml of this medium to 970 ml of Friss Mycoplasma Broth Base after incubation under microaerophilic condition.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Acholeplasma laidlawii	23206	50-100	Good-luxuriant	35-38°C	48 Hours - 1 Week
Mycoplasma orale	23714	50-100	Good-luxuriant	35-38°C	48 Hours - 1 Week
Mycoplasma pneumoniae	15531	50-100	Good-luxuriant	35-38°C	48 Hours - 1 Week

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

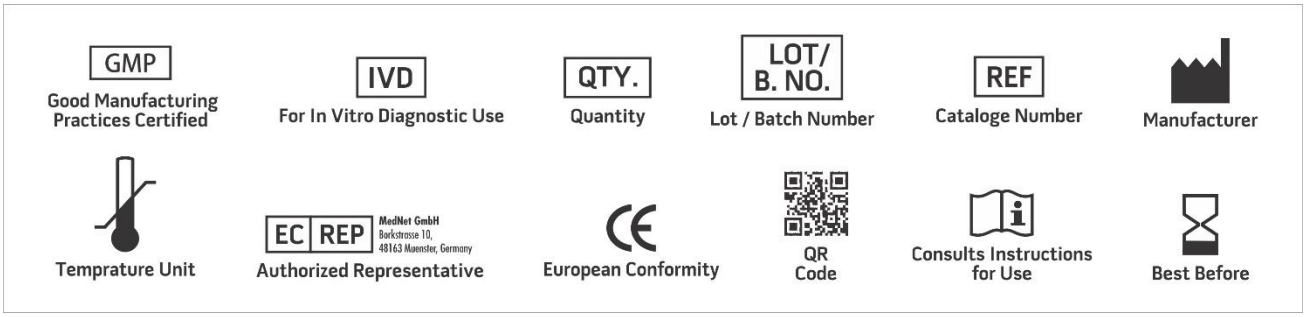
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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. European Pharmacopoeia, 2014, European Dept. for the quality of Medicines
4. Tauraso, Nicola M., 1967: Effect of diethylaminoethyl dextran on the growth of Mycoplasma in agar. J Bacteriol: 1559-1564.



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

***For Lab Use Only**

Revision: 08 Nov., 2019