TM 2095 – FRIIS LIQUID 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. For the cultivation of Mycoplasma the medium ingredients and all the supplements should be free of any toxic substances even in small amounts.

COMPOSITION

Ingredients	Gms / Ltr
Proteose petone	0.821
Peptone	1.508
Yeast extract	6.200
Calf brain infusion	16.42
Beef heart infusion	28.063
Sodium chloride	5.054
Magnesium sulphate, heptahydrate	0.049
Potassium chloride	0.194
Calcium chloride, anhydrous	0.068
Magnesium chloride, hexahydrate	0.049
Disodium hydrogen phosphate, dihydrate	0.036
Disodium hydrogen phosphate	0.205
Potassium hydrogen phosphate,anhydrous	0.029
Glucose monohydrate	0.164
Phenol red	0.014

PRINCIPLE

This medium contains Proteose peptone, peptone, yeast extract, Calf brain infusion and Beef heart infusion 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.

INSTRUCTION FOR USE

- Dissolve 16.04 grams in 800 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 45-50°C. Aseptically add 100 ml of Horse serum, 100 ml of Pig(Swine) serum and rehydrated contents of one vials of Friis supplement.
- Mix well and dispense as desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to pink homogeneous free flowing powder.
Appearance of prepared medium : Light pink coloured clear to slightly opalescent gel forms in tubes.
pH (at 25°C) : 7.40 ± 7.45

INTERPRETATION

Cultural characteristics observed with addition of 100 ml of Horse serum, 100 ml of Swine serum and rehydrated contents of one vial of Friss Supplement 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

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5. 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.
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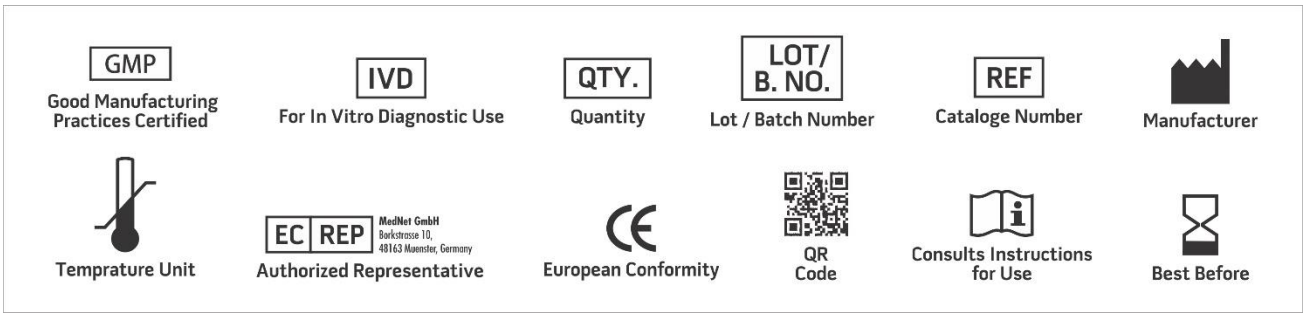

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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