TM 2150 – LIVER VEAL AGAR

INTENDED USE

For the cultivation of fastidious anaerobic organisms.

PRODUCT SUMMARY AND EXPLANATION

Anaerobic bacteria live in an oxygen-free environment. Some anaerobic bacteria actually die if oxygen is present while others fail to grow and multiply. One of the methods of cultivation of anaerobes is using the Sprays medium by using the anaerobic culture dish.

Liver Veal Agar is formulated as per the medium of Spray. Liver Veal Agar is recommended by APHA and the FDA Bacteriological Analytical Manual (BAM). Liver Veal Agar on supplementation of 50% egg yolk is recommended for the cultivation of anaerobic organisms. The medium is highly nutritious and therefore is an excellent medium for growth of sporulating anaerobic bacteria.

COMPOSITION

Ingredients	Gms / Ltr
Liver, infusion from	50.000
Veal, infusion from	500.000
Proteose peptone	20.000
Peptone, special	1.300
Tryptone	1.300
Gelatin	20.000
Starch, soluble	10.000
Casein, purified	2.000
Dextrose (Glucose)	5.000
Sodium chloride	5.000
Sodium nitrate	2.000
Agar	15.000

PRINCIPLE

This medium contains Liver infusion from, Veal infusion from. Tryptone and gelatin which serve as sources of carbon, nitrogen, amino acids and various vitamins. Dextrose serves as the carbon source. Starch enhances growth of anaerobic bacteria. Spray reported isolation of *Clostridium perfringens* within 6 hours of inoculation and *Clostridium tetani* within 8 hours. When the medium is inoculated with a small inoculum, gas production is not evident. Spray recommended that the medium should be taken directly from the sterilizer or should be boiled for 10 minutes to drive off dissolved oxygen and cooled without agitation. Serial inoculations are made and the medium is poured into plates. After solidification, 5 ml sterile Liver Veal Agar is poured over the medium as a cover layer to prevent the spreading of surface colonies.

C. botulinum and *C. tetani* are highly hazardous and extreme care should be taken while handling these cultures.

INSTRUCTION FOR USE

- Dissolve 97.0 grams in 1000 ml purified/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.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to brownish yellow homogeneous free flowing powder.

Appearance of prepared medium : Amber coloured clear to slightly opalescent gel forms in Petri plates, may have slight precipitate .

pH (at 25°C) : 7.3 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation (under the atmospheric requirement of organism).

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Clostridium botulinum	25763	50-100	Luxuriant	>=70%	35-37°C	18-48 Hours
Clostridium tetani	10709	50-100	Luxuriant	>=70%	35-37°C	18-48 Hours
Neisseria meningitidis	13090	50-100	Luxuriant	>=70%	35-37°C	18-48 Hours
Streptococcus pneumoniae	6303	50-100	Luxuriant	>=70%	35-37°C	18-48 Hours

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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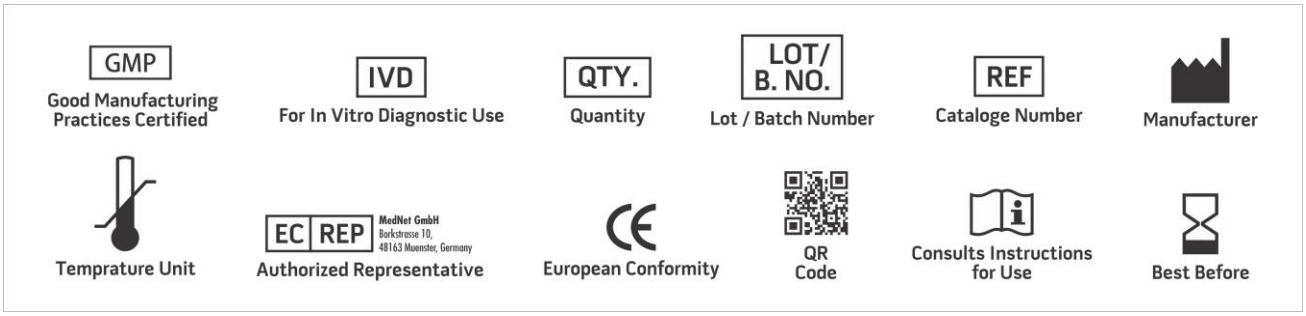

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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