

# TM 765 – LIVER MEAT AGAR

#### **INTENDED USE**

For cultivation of fastidious anaerobes.

### 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.

### **COMPOSITION**

Ingredients	Gms / Ltr
Meat liver infusion powder	20.000
Dextrose (Glucose)	0.750
Starch	0.750
Sodium sulphite	1.200
Ammonium ferric citrate	0.500
Agar	11.000

### **PRINCIPLE**

This medium contains Meat liver infusion powder which provides adequate degree of anaerobiosis and is also rich source of growth nutrients, which enables even the strict and fastidious anaerobes to grow well. Some anaerobes (e.g. certain *Clostridium* species) reduce the sulphite present in the medium to hydrogen sulphide (H<sub>2</sub>S) which is indicated by the blackening of colonies due to presence of ferric ammonium citrate. Inoculation can be performed by the pour plate method or by surface smearing.

#### **INSTRUCTION FOR USE**

- Dissolve 34.2 grams in 1000 ml purified/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.
- Mix well and pour into sterile Petri plates.

## **QUALITY CONTROL SPECIFICATIONS**

**Appearance of Powder** : Light yellow to light brown homogeneous free flowing powder.

**Appearance of prepared medium**: Brown coloured opalescent gel with suspended particles forms in Petri plates.

**pH (at 25°C)** : 7.6 ± 0.2

#### **INTERPRETATION**

Cultural characteristics observed under anaerobic condition, after incubation.











Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Gas production	Incubation Temperature	Incubation Period
Clostridium perfringens	12924	50-100	Luxuriant	>=70%	Positive reaction	35-37°C	18-24 Hours
Clostridium tetani	10779	50-100	Luxuriant	>=70%	Positive reaction	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	>=70%	Negative reaction	35-37°C	18-24 Hours
Proteus mirabilis	25933	50-100	Luxuriant	>=70%	Negative or weakly positive reaction	35-37°C	18-24 Hours
Clostridium botulinum	25763	50-100	Luxuriant	>=70%	Positive reaction	35-37°C	18-24 Hours
Bacteroides vulgatus	8482	50-100	Good- luxuriant	>=50%	Negative reaction	35-37°C	18-24 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

- 1. Alcamo E. I., 2001, Fundamentals of Microbiology, 6th Ed., Jones and Bartlett Publishers
- 2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
- 4. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.





































**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. \*For Lab Use Only

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