TM 120 - HEART INFUSION AGAR (BEEF HEART INFUSION AGAR)

INTENDED USE

For isolation and cultivation of various fastidious microorganisms.

PRODUCT SUMMARY AND EXPLANATION

Fastidious organisms having exacting nutritional requirement could be cultivated on infusion media, as demonstrated by Huntoon. A liquid medium containing an infusion of meat was one of the first media used for the cultivation of bacteria. These infusion media need not be further supplemented by the addition of supplements for cultivation of fastidious bacteria. HI Agar, containing infusion from beef heart is used for the isolation and cultivation of a wide variety of fastidious organisms. HI Agar can also be used for the cultivation of Vibrio species. It can also be supplemented with glucose, horse serum and antibiotics for the cultivation a wide variety of organisms. It is used for mass cultivation of organisms for preparation of vaccines. On supplementation of blood, HI Agar can be used to study haemolytic reactions. This medium was used for isolation and enumeration of haemolytic Streptococci in milk.

COMPOSITION

Ingredients	Gms / Ltr
Beef heart, infusion from	500.00
Tryptose	10.000
Sodium chloride	5.000
Agar	15.000

PRINCIPLE

The medium consists of Tryptose and Beef heart, infusion from which provide nutritional requirements for the pathogenic bacteria. Sodium chloride maintains the osmotic equilibrium of the medium.

INSTRUCTION FOR USE

- Dissolve 40.0 grams in 1000 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. If desired 5% v/v sterile defibrinated blood may be added.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

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

Appearance of prepared medium : Basal medium: Light yellow coloured, clear to slightly opalescent gel After addition of 5-7%w/v sterile defibrinated blood : Cherry red coloured, opaque gel forms in Petri plates.

pH (at 25°C) : 7.4±0.2

INTERPRETATION

Cultural characteristics observe with added 5-7% w/v sterile defibrinated blood after incubation.

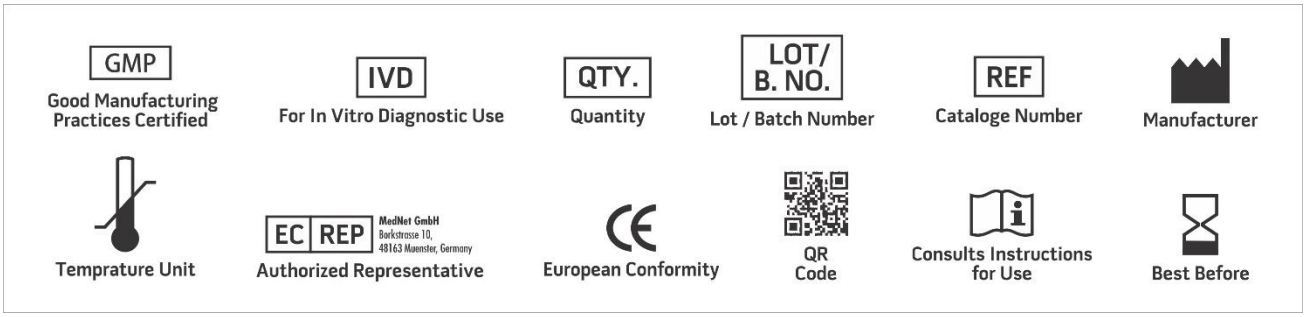
Microorganism	ATCC	Inoculum (CFU/ml)	Growth w/o blood	Recovery w/o blood	Growth with blood	Recovery with blood	Haemolysis	Incubation Temperature	Incubation Period
Staphylococcus aureus subsp. aureus	25923	50-100	Good-luxuriant	>=50%	Luxuriant	>=70%	Beta	35 - 37°C	24-48 Hours
Neisseria meningitidis	13090	50-100	Luxuriant	>=70%	Luxuriant	>=70%	None	35 - 37°C	24-48 Hours
Streptococcus pneumoniae	6303	50-100	Good	40-50%	Luxuriant	>=70%	Alpha	35 - 37°C	24-48 Hours
Streptococcus pyogenes	19615	50-100	Good	40-50%	Luxuriant	>=0%	Beta	35 - 37°C	24-48 Hours
Escherichia coli	25922	50-100	Luxuriant	>=70%	Luxuriant	>=70%	Beta	35 - 37°C	24-48 Hours

PACKAGING:
In pack size of 100 gm and 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. American Public Health Association, Standard Methods for the Examination of Dairy Products, 1978, 14th Ed., Washington D.C.
2. Atlas R. M., 2004, Handbook of Microbiological Media, 3rd Ed., CRC Press.
3. Diagnostic Procedures and Reagents, 1950, 3rd Edition, 13.
4. FDA Bacteriological Analytical Manual, 8th Ed., AOAC International, Gaithersburg, MD.
5. Huntoon F. M., 1918, J. Inf. Dis., 23:169.
6. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
7. 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.



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

***For Lab Use Only**

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