TM 2105 - HEART INFUSION YEAST EXTRACT AGAR BASE

INTENDED USE

For the isolation and cultivation of *Campylobacter* in accordance with FDA BAM 1998.

PRODUCT SUMMARY AND EXPLANATION

*Campylobacter*are microaerophilic, very small, curved, thin, Gram-negative rods (1.5-5 µm), with corkscrew motility. It is considered to be one of the leading causes of enteric illness in the United States and other developed countries. The organism is reported to cause mild to severe diarrhea, with loose, watery stools often followed by bloody diarrhea. The infection together is called as campylobacteriosis. *Campylobacter* are carried in the intestinal tract of a wide variety of wild and domestic animals, especially birds and are frequent contaminants foods of animal origin.

Heart Infusion Yeast Extract Agar Base is used for selective isolation and differentiation of *Campylobacter* species in accordance with FDA BAM, 1998. Initially blood was used in the isolation of *Campylobacter*. 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. Heart Infusion Agar, containing meat infusion is used for the isolation and cultivation of a wide variety of fastidious organisms including *Vibrio* species. On supplementation of blood, Heart Infusion Agar can be used to study haemolytic reactions.

According to the BAM protocol, samples are pre enriched (if required) with suitable media under micro aerobic conditions for appropriate time at 37°C. These enriched cultures are further preceded for isolation, identification and confirmation. For isolation, appropriately diluted samples are inoculated into either Heart Infusion Yeast Extract Agar Base or Bloodfree Campylobacter Selectivity Agar Base, w/o yeast extract. Plates are incubated at 37-42°C under anaerobic conditions away from light *Campylobacter* colonies on agar appear as round to irregular with smooth edges. They can show thick translucent white growth to spreading, film-like transparent growth. These are further confirmed using microscopy and biochemical tests.

COMPOSITION

Ingredients	Gms / Ltr
Beef heart infusion from	500.000
Tryptose	10.000
Sodium Chloride	5.000
Agar	15.000
Yeast extract	2.000

PRINCIPLE

Tryptose and beef heart infusion provide nutritional requirements for the pathogenic bacteria. Sodium chloride maintains the osmotic equilibrium of the medium.

INSTRUCTION FOR USE

- Dissolve 42.00 grams in 950 ml of distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 min Final pH, 7.4 ± 0.2. Add 25ml of sterile lysed horse blood (if desired) and 1 vial each of Campylobacter Growth Supplement and Campylobacter Selective Supplement, Abeyta.
- Mix well and pour into sterile Petri plates. Do not dry in the hood with lids open.

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 observed with added 5-7% w/v sterile defibrinated blood, Campylobacter Growth Supplement and Campylobacter Selective Supplement, Abeyta after an incubation under reduced oxygen atmosphere.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Campylobacter jejuni	33291	50-100	Luxuriant	>=70%	35 - 37°C	24-48 Hours
Campylobacter coli	33559	50-100	Luxuriant	>=70%	35 - 37°C	24-48 Hours
Staphylococcus aureus	25923	>=10^3	Inhibited	0%	35 - 37°C	24-48 Hours
Neisseria meningitidis	13090	>=10^3	Inhibited	0%	35 - 37°C	24-48 Hours
Streptococcus pyogenes	19615	>=10^3	Inhibited	0%	35 - 37°C	24-48 Hours
Escherichia coli	25922	>=10^3	Inhibited	0%	35 - 37°C	24-48 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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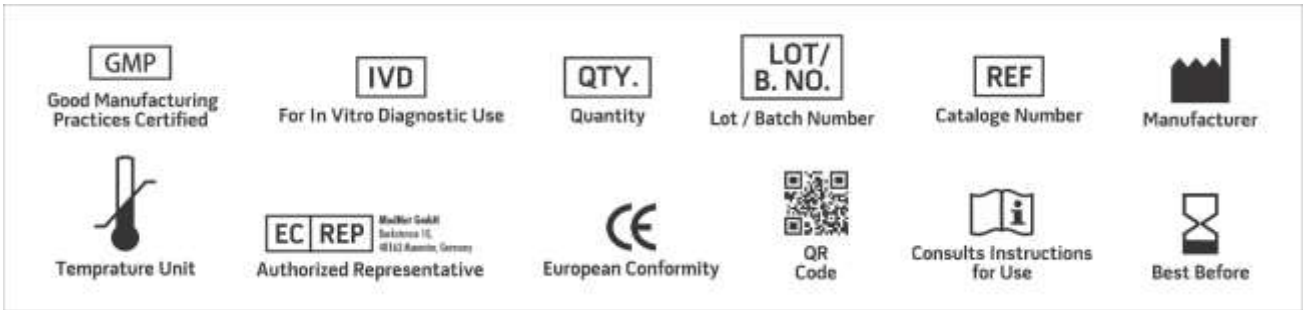

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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