CM 20648 – EMB BROTH (VEG.)

INTENDED USE

For isolation of gram-negative enteric bacteria from clinical and non-clinical specimens.

PRODUCT SUMMARY AND EXPLANATION

These media are preparedbyusing Veg peptonein place of peptic digest of animal tissue which is free of BSE/TSE risks. EMB Veg Media are the modification of Eosin Methylene Blue (EMB) Media which are originally devised by Holt-Harris and Teague and further modified by Levine.

Methylene blue and Eosin-Y inhibit gram positive bacteria to a limited degree. These dyes serve as differential indicators in response to the fermentation of carbohydrates. The ratio of eosin and methylene blue is adjusted approximately to 6:1. Sucrose is added to the medium as an alternative carbohydrate source for typically lactose fermenting, gram-negative bacilli, which on occasion do not ferment lactose or do so slowly. The coliforms produce purplish black colonies due to taking up of methylene blue eosin dye complex, when the pH drops. The dye complex is absorbed into the colony. Non-fermenters probably raise the pH of surrounding medium by oxidative deamination of protein, which solubilizes the methylene blue-eosin complex resulting in colourless colonies.

COMPOSITION

Ingredients	Gms / Ltr
Veg Peptone	10.000
Dipotassium phosphate	2.000
Lactose	5.000
Sucrose	5.000
Eosin - Y	0.400
Methylene blue	0.065

PRINCIPLE

Themedium consists of Veg Peptone which serves as source of carbon, nitrogen, and other essential growth nutrients. Lactose and sucrose are the sources of energy by being fermentable carbohydrates. Eosin-Y and methylene blue serve as differential indicators. Phosphate buffers the medium.

INSTRUCTION FOR USE

Dissolve 22.5 grams in 1000 ml purified / distilled water.
Mix until suspension is uniform. Heat to boiling to dissolve the medium completely.
Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. AVOID OVERHEATING.
Cool to 45-50°C and shake the medium in order to oxidize the methylene blue (i.e. to restore its blue colour) and to suspend the flocculent precipitate.
Precaution: Store the medium away from light to avoid photo-oxidation.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light purple coloured, homogeneous, free flowing powder, may contain minute to small dark red purple particles.
Appearance of prepared medium	: Reddish-purple coloured, opalescent gel or solution.
pH (at 25°C)	: 7.2 ± 0.2

INTERPRETATION

Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	35-37°C	18-24 Hours
Proteus mirabilis	25933	50-100	Luxuriant	35-37°C	18-24 Hours
Salmonella serotype Typhimurium	14028	50-100	Luxuriant	35-37°C	18-24 Hours
Enterobacter aerogenes	13048	50-100	Good	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Good	35-37°C	18-24 Hours
Staphylococcus aureus	25923	50-100	Inhibited	35-37°C	18-24 Hours

PACKAGING:

Inpacksizeof100 gm and 500 gm bottles.

STORAGE

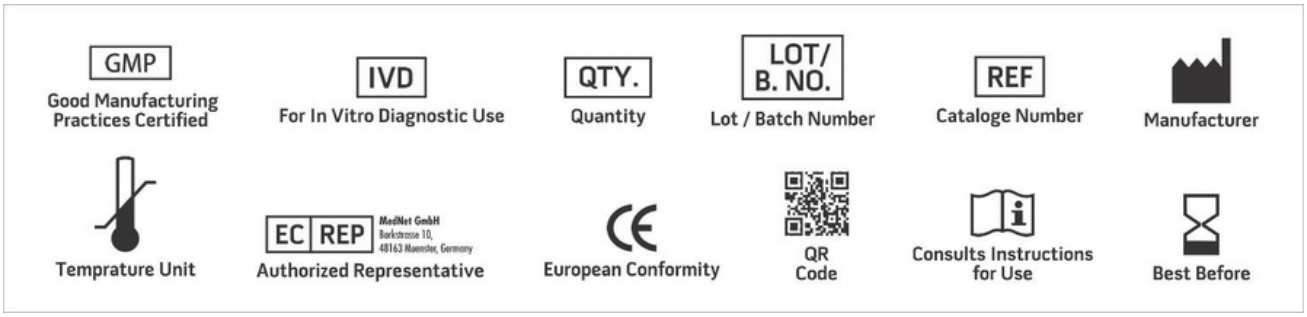
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1.Holt-Harris and Teague,1916, J. Infect. Dis., 18: 596.
2. Howard B.J., 1994, Clinical and Pathogenic Microbiology, 2nd ed., Mosby Year Book, Inc.
3. Levine, 1918, J. Infect. Dis., 23:43.



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

*For LabUse Only