CM 20542 - DECARBOXYLASE TEST MEDIUM BASE (FALKOW) (IS : 5887 (Part V) 1976, reaffirmed 2005)

INTENDED USE

For cultivation and differentiation of bacteria based on their decarboxylase activity.

PRODUCT SUMMARY AND EXPLANATION

Decarboxylase testmediumbasewasdeveloped by Falkow for differentiating Salmonella & Shigella species on the basis of their decarboxylase activity. Thismedium is recommended by BIS for detection of dihydrolase and decarboxylase activity of Vibrio cholerae andother vibrios.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	5.000
Yeast extract	3.000
Dextrose	1.000
Bromo cresol purple	0.020

PRINCIPLE

Yeast extract and Peptic digest of animal tissue which provides nitrogenous nutrients for the growth of bacteria. Dextrose is the fermentable carbohydrate. Bromo cresol purple is the pH indicators of this medium. The pH is lowered due to acid production which changes the color of the indicator from purple to yellow. The resulting reaction after 24- 96 hours will indicate an alkaline reaction seen as purple colour for decarboxylase producing bacteria and an acid pH (yellow) by the bacteria not producing decarboxylase.

INSTRUCTION FOR USE

Dissolve 9.00grams in 1000ml distilled water. Gently heat, if necessary to dissolve the medium completely.
Divide into fourequal parts. One part is tubed without addition of any amino acid. To the remaining three parts, add separately L-lysine hydrochloride, L-arginine hydrochloride and L-ornithine hydrochloride to a final concentration of0.5%.
Add 0.5% aminoacid (L – Lysine or L – Arginine or L - Ornithine) and agitate to dissolve completely.
Dispense 5 ml amounts into screw capped test tubes.
Sterilize by autoclaving at 10 psi (115°C) for 20 minutes.
Cool at room temperature prior to use.

Note: To avoid false alkalization at the surface of medium it is recommended to add liquid paraffin to a height of about 5mm before sterilization.

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydratedpowder : Yellow to greenish yellow coloured, Homogeneous free flowing powder
Appearance of Prepared medium : Purple coloured, clear solution without any precipitate
pH (at 25°C) : 6.7± 0.2

INTERPRETATION

Cultural characteristics observed after incubation at 35-37°C for 4 days.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Lysine Decarboxylase	Arginine Decarboxylase	Ornithine Decarboxylase
Escherichia coli	25922	50-100	Luxuriant	Variable reaction	Variable reaction	Variable reaction
Enterobacter aerogenes	13048	50-100	Luxuriant	Positive reaction, purple colour	Negative reaction, yellow colour	Positive reaction, purple colour
Klebsiella pneumoniae	13883	50-100	Luxuriant	Positive reaction, purple colour	Negative reaction, yellow colour	Negative reaction, yellow colour
Proteus vulgaris	13315	50-100	Luxuriant	Negative reaction, yellow colour	Negative reaction, yellow colour	Negative reaction, yellow colour
Pseudomonas aeruginosa	27853	50-100	Luxuriant	Negative reaction, yellow colour	Positive reaction, purple colour	Negative reaction, yellow colour
Vibrio cholerae	15748	50-100	Luxuriant	Negative reaction, yellow colour	Positive reaction, purple colour	Positive reaction, purple colour
Shigella flexneri	12022	50-100	Luxuriant	Negative reaction, yellow colour	Delayed positive reaction or negative reaction, yellow colour	Negative reaction, yellow colour

PACKAGING:

In100&500gm packaging size.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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 powder if they show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Calquist, 1956, J. Bact., 71:339.
2. Falkow, 1958, Am. J. Clin. Path., 29:598. Moeller, V., Acta. Pathol. Microbiol. Scand. 36:158. (1955).
3. Lennette, E.H., Ballows, A., Hausler, W.J.Jr., and Shadomy, H.J. Manual of Clinical Microbiology. 4th ed. Washington D.C.: American society for Microbiology. (1985).
4. Bureau of Indian Standards, IS : 5887 (Part V) 1976, reaffirmed 1986..

GMP Good Manufacturing Practices Certified
Best Before
QTY. Quantity
REF Catalogе Number
Manufacturer
Temprature Unit
LOT/ B. NO. Lot / Batch Number
Consults Instructions for Use
QR Code

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

*ForLabUseOnly