CM 22074 -LYSINE DECARBOXYLASE BROTH W/O PEPTONE (ISO 6579:2002, ISO 22964:2006)

INTENDED USE

For differentiating Salmonella serotype arizonae from the Bethesda Ballerup group of Enterobacteriacae.

PRODUCT SUMMARY AND EXPLANATION

Lysinedecarboxylasebrothw/opeptoneis used for biochemical confirmation of Salmonella species. It is modified formulation of falkow's Lysine decarboxylase medium, where peptone is deleted from the composition to eliminate false positives caused by Citrobacter freundii and its paracolons. This medium is recommended by the ISO Committee for the identification and differentiation of Salmonella.

COMPOSITION

Ingredients	Gms / Ltr
L-Lysine hydrochloride	5.000
Yeast extract	3.000
Dextrose	1.000
Bromo cresol purple	0.015

PRINCIPLE

Themediumcontains Yeast extract which is a source of vitamins, particularly of the B-group. Dextrose is the fermentable carbohydrate. Bromocresol purple is the pH indicator. When the medium is inoculated with a dextrose-fermenting bacterium, the sugar is fermented and the acid produced lowers the pH of the medium which changes the color of the medium from purple to yellow. L-Lysine hydrochloride is added to detect the production of the specific enzyme. The bacteria that acts on Lysine will decarboxylate it to cadaverine that will lead to an alkaline reaction. This will change the colour if the medium to purple-red as the pH elevation will be detected by the indicator. A yellow colour medium after 24 hours indicates a negative result.

INSTRUCTION FOR USE

- Dissolve 9.01 grams in 1000ml distilled water.
- Gently heat to boiling with swirling to dissolve the medium completely.
- Dispense 5ml into screw-capped tubes.
- Sterilize by autoclaving at 15 psi (121°C) for 15 minutes.
- Cool the tubed medium in an upright position and overlay with 2-3ml of sterile mineral oil.

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder	:	Light yellow to greenish yellow, homogeneous free flowing powder
Appearance of Prepared medium	:	Purple coloured, clear solution
pH (at 25°C)	:	6.8± 0.2

INTERPRETATION

Culturalcharacteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Lysine decarboxylation	Incubation Temp.	Incubation Period

Citrobacter freundii	8090	50-100	Good-Luxuriant	Variable reaction	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Good-Luxuriant	Variable reaction	35-37°C	18-24 Hours
Enterobacter aerogenes	13048	50-100	Good-Luxuriant	Positive reaction (Purple colour)	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Good-Luxuriant	Positive reaction (Purple colour)	35-37°C	18-24 Hours
Salmonella paratyphi A	9150	50-100	Good-Luxuriant	Negative reaction (yellow colour)	35-37°C	18-24 Hours
Salmonella Arizonae	13314	50-100	Good-Luxuriant	Positive reaction (Purple colour)	35-37°C	18-24 Hours
Salmonella Typhi	6539	50-100	Good-Luxuriant	Positive reaction (Purple colour)	35-37°C	18-24 Hours
Proteus mirabilis	25933	50-100	Good-Luxuriant	Negative reaction (Yellow colour)	35-37°C	18-24 Hours
Proteus vulgaris	13315	50-100	Good-Luxuriant	Negative reaction (Yellow colour)	35-37°C	18-24 Hours
Serratia marcescens	8100	50-100	Good-Luxuriant	Positive reaction (Purple colour)	35-37°C	18-24 Hours
Shigella dysenteriae	13313	50-100	Good-Luxuriant	Negative reaction (Yellow colour)	35-37°C	18-24 Hours

PACKAGING

In 100 & 500 gm packaging size.

STORAGE

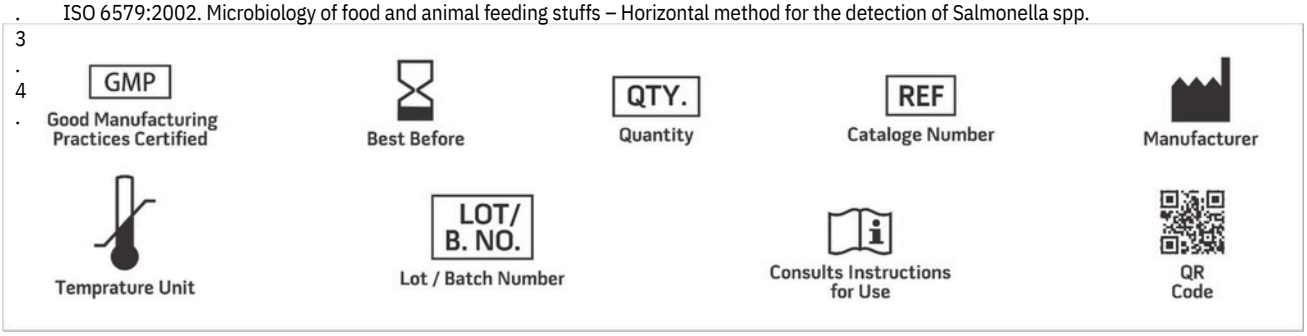
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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, if powder show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

DISPOSAL

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

REFERENCES

1. S. Falkow, Activity of lysine decarboxylase as an aid in the identification of Salmonellae and Shigellae, Am. J. Clin. Path. 29, 598-600. (1958).
2. Ewing Davis and Deaves. Studies in the Serratia Group. U.S. Dept. H.E.W.C.D.C. Atlanta, (1972).
3. Edwards and Ewing. Identification of Enterobacteriaceae, Burgess Publ. Co. Minneapolis, Minn. (1961).
4. ISO 6579:2002. Microbiology of food and animal feeding stuffs – Horizontal method for the detection of Salmonella spp.



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

*ForLabUse Only