TM 1084 - SELECTIVE LYSINE AGAR (as per AOAC)

INTENDED USE

For selective isolation and identification of Salmonellae.

PRODUCT SUMMARY AND EXPLANATION

Selective Lysine Agar is recommended by AOAC, APHA and FDA for the isolation and identification of Salmonellae in foods. As per AOAC (The hydrophobic grid membrane filter method), membrane filters are used containing hydrophobic lines, printed in a grid pattern, that serve as barrier to the spread of colonies from one area of the filter to another.

Food sample is processed and suspended in a general enrichment broth and incubated for 18 to 24 hours at 35-37°C and then subjected to selective enrichment procedures in broth media. Following a 6-8 hrs incubation period at 35-37°C, aliquots of the broth are filtered through a selective hydrophobic grid membrane filter. The filter is then placed on the surface of a plate of Selective Lysine Agar, which has been pre-dried to eliminate excess surface moisture. The trapping of air bubbles between the filter and agar surfaces must be avoided. A second filter is similarly placed onto a plate of Hektoen Enteric Agar. The plates of Selective Lysine Agar are incubated for 24 ± 2 hours at 43°±0.5°C.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	5.000
Yeast extract	3.000
L-Lysine hydrochloride	10.000
Bile salts mixture	1.500
Dextrose	3.500
Crystal violet	0.001
Bromo cresol purple	0.030
Sulfapyridine	0.300
Agar	15.000

PRINCIPLE

Peptic digest of animal tissue, yeast extract provides nitrogenous compounds, sulphur, vitamin B complex and other essential growth nutrients. Dextrose serves as an energy source. Bromocresol purple is the pH indicator that changes from purple to yellow at acidic pH. Organisms such as *Salmonella.* which are able to decarboxylate lysine reverse this acid reaction and form blue-green, blue or purple colonies. Bile salts mixture and Sulphapyridine inhibit gram-positive organisms.

INSTRUCTION FOR USE

- Dissolve 38.33 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, do not overheat.
- Mix well before pouring in sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Dark purple coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 6.8±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Color of the colony	Incubation Temperature	Incubation Period
Salmonella Typhimurium	14028	50-100	Luxuriant	>=70%	Blue-green	35 - 37°C	18 - 24 Hours
Shigella dysenteriae	9361	50-100	None-poor	0-10%	Yellow-green (if any)	35 - 37°C	18 - 24 Hours
Staphylococcus aureus	25923	>=10^3	Inhibited	0%	-	35 - 37°C	18 - 24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

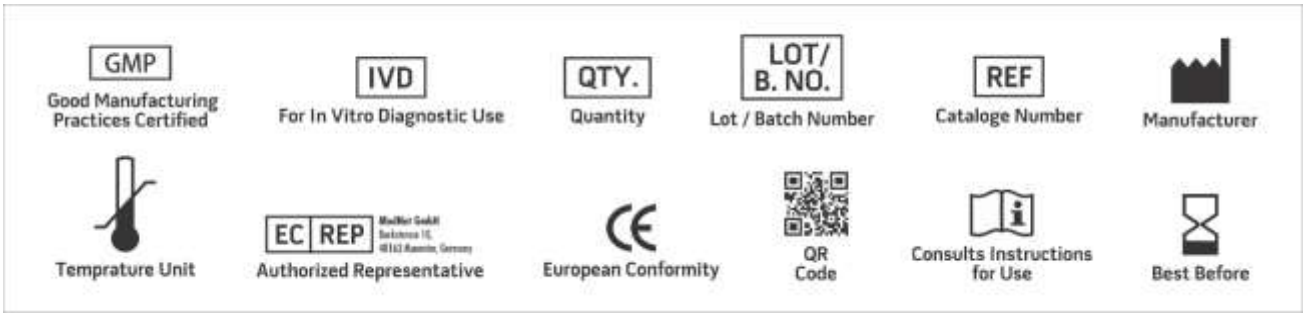
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided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

1. Williams. (Ed.), 2005, Official Methods of Analysis of the Association of Official Analytical Chemists, 19th ed., AOAC, Washington, D.C
2. Downes F P and Ito K(Eds.), 2001, Compendium of Methods for The Microbiological Examination of Foods, 4th ed., APHA, Washington, D.C.
3. FDA Bacteriological Analytical Manual, 2005, 18th ed., AOAC, Washington, DC.



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

***For Lab Use Only**

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