TM 248 – PM INDICATOR AGAR (PENICILLIN IN MILK INDICATOR AGAR) (as per AOAC)

INTENDED USE

For rapid detection of trace amounts of Penicillin in milk.

PRODUCT SUMMARY AND EXPLANATION

PM Indicator Agar is used for rapid detection of trace amounts of penicillin in milk where AOAC has recommended *Bacillus stearothermophilus* qualitative discs. PM Indicator Agar is designed according to the formula published by the 18th Annual Meeting of the National Mastitis Council. This method is a modification of the method approved by the International Dairy Federation for the qualitative detection of penicillin in milk. Originally a medium called Reductase Medium was suggested by Reid and Brewer for detecting penicillin in milk by using *Bacillus subtilis*. The present medium is better, faster and more reliable than that of Reid and Brewer (This medium is designed to support and demonstrate the growth and acid formation by *B. stearothermophilus*, which is sensitive to penicillin and b-lactam residues). To demonstrate the presence of traces of penicillin in milk; the qualitative disc method is found to be more suitable which is also recommended by AOAC.

COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	5.000
Casein enzymic hydrolysate	1.700
Papaic digest of soyabean meal	0.300
Beef extract	3.000
Dextrose	5.250
Sodium chloride	0.500
Dipotassium phosphate	0.250
Polysorbate 80	1.000
Bromo cresol purple	0.060
Agar	15.000

PRINCIPLE

This medium consists of Peptic digest of animal tissue, casein enzymic hydrolysate and beef extract which provide amino acids, other nitrogenous nutrients, vitamin B complex etc. Dextrose is the fermentable carbohydrate. The phosphates form buffering system while sodium chloride maintains osmotic equilibrium. Agar act as a solidifying agent in the medium.

INSTRUCTION FOR USE

- Dissolve 3.2 grams in 100 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and dispense as desired.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Beige to bluish grey homogeneous free flowing powder.
Appearance of prepared medium : Purple coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.8 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Bacillus stearothermophilus	7953	50-100	Good	40-50%	55 ± 2°C	3-4 Hours
Bacillus stearothermophilus	7953	50-100	Luxuriant	>=70%	64 ± 2°C	3-4 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

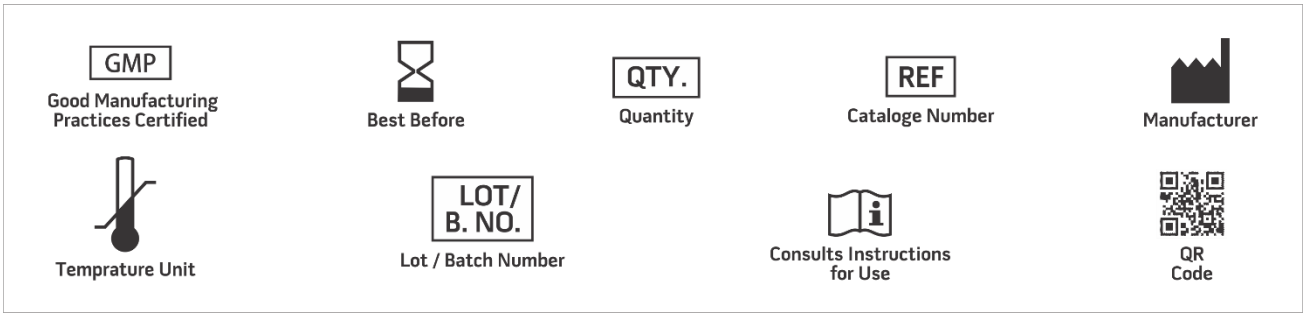
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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. Publ. of the 18th Annual Meeting of Natl. Mastitis Council, Inc.
3. International Dairy Federation, 1970, International Dairy Federation, Brussels, Belgium.
4. Reid R. D. and Brewer J. H., 1946, J. Bacteriol., 52: 251.



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

***For Lab Use Only**

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