TM 836 – PURPLE AGAR BASE

INTENDED USE

For identification of pure cultures of enteric and other microorganisms.

PRODUCT SUMMARY AND EXPLANATION

Purple Agar Base is used for studying carbohydrate fermentation reactions, particularly in the identification of gram-negative enteric bacteria on addition of the desired carbohydrate. Purple media were originally formulated by Vera and further modified by addition of Meat Extract B. These media are recommended by FDA for fermentation studies of sugars.

COMPOSITION

Ingredients	Gms / Ltr
Peptone special	10.000
Meat extract B	1.000
Sodium chloride	5.000
Bromo cresol purple	0.020
Agar	15.000

PRINCIPLE

This medium consists of Meat Extract B and peptone special which supply nitrogenous and carbonaceous compounds, long chain amino acids and other essential nutrients especially nitrogen sources to the growing organisms. Sodium chloride maintains the osmotic balance of the medium. Bromocresol purple is the pH indicator, which turns yellow at acidic pH. Gas production is evident by splitting of agar. The acid produced during the fermentation of carbohydrate causes Bromocresol purple, the pH indicator to turn yellow.

If the carbohydrate is not utilized or fermented, the colour of the medium remains unchanged or becomes more alkaline (darker purple) due to decarboxylation of the amino acids present in the medium. It is recommended to add carbohydrate in 1% concentration to avoid possible reversion reactions except glucose (dextrose). If the medium containing carbohydrate is sterilized by autoclaving, precautions should be taken to use minimum amount of heat required for sterilization to avoid hydrolysis of the carbohydrate.

INSTRUCTION FOR USE

- Dissolve 31.02 grams in 1000 ml purified/ distilled water.
- Add 5 - 10 grams of the carbohydrate to be tested.
- Heat to boiling to dissolve the medium completely.
- Dispense in tubes as desired and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C. Alternatively sterilize the basal medium prepared using 900 ml purified / distilled water and add 100 ml separately sterilized 5 - 10%solution of the desired carbohydrate to it.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to greenish yellow homogeneous free flowing powder.

Appearance of prepared medium : Purple coloured clear to slightly opalescent gel forms in tubes as slants.

pH (at 25°C) : 6.8 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

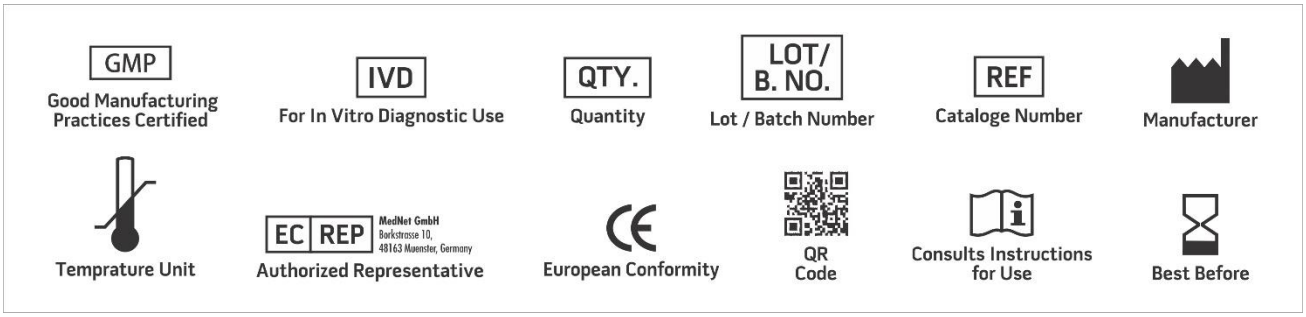
Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid (without carbohydrate)	Gas (without carbohydrate)	Acid (with1% dextrose)	Gas (with1% dextrose)	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Positive reaction	35-37°C	18-48 Hours
Listeria monocytogenes	19112	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour (fermentative metabolism)	Negative reaction	35-37°C	18-48 Hours
Neisseria meningitidis	13090	50-100	Good-luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Negative reaction	35-37°C	18-48 Hours
Staphylococcus aureus subsp. aureus	25923	50-100	Luxuriant	Negative reaction, no colour change	Negative reaction	Positive reaction, yellow colour	Negative reaction	35-37°C	18-48 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. Ewing W. H., 1986, Edwards and Ewings identification of Enterobacteriaceae , 4th ed. Elsevier Science Publishing Co, Inc., New York, N.Y.
2. Forbes B. A., Sahm A. S., and Weissfeld D. F., 1998, Bailey & Scotts Diagnostic Microbiology, 10th Ed., Mosby, Inc., St. Louis, Mo.
3. Vera H. D., 1950, Am. J. Public Health, 40:1267.
4. Finegold S. M. and Baron E. J., 1986, Bailey and Scotts Diagnostic Microbiology, 7th Ed., The C.V. Mosby Co., St. Louis.
5. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, DC.
6. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. Wilkins, Baltimore and I Williams.
7. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
8. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.



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

***For Lab Use Only**

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