TM 1963 – ANDRADE PEPTONE WATER, MODIFIED

INTENDED USE

For carbohydrate fermentation studies of particularly Enterobacteriaceae members in accordance with FDA BAM, 1998.

PRODUCT SUMMARY AND EXPLANATION

Bacteria differ widely in their ability to metabolize carbohydrates and related compounds. Carbohydrate fermentation reactions aids in the differentiation and identification of various bacteria. Andrade Peptone Water, Modified is prepared in accordance with FDA BAM, 1998 for carbohydrate fermentation studies of particularly *Enterobacteriaceae* members. Desired carbohydrate is added to the medium, which is inoculated with the test organism. If the test organism metabolizes the added carbohydrate, acids are produced, thereby lowering the pH of the medium. This causes a subsequent colour change of the indicator, from colourless to pink to red. If the added carbohydrate is not metabolized, the medium remains pale tan to straw coloured. Gas produced during fermentation is collected in the Durhams tube.
The medium is pink when hot but becomes straw coloured on cooling. Test carbohydrate solutions should be sterilized separately and added aseptically to the sterile media. The biochemical identification of organisms capable of growing in this medium is made by various sugar fermentation results. Use fresh cultures of organisms, which have been presumptively identified by Gram staining and colony morphology. Biochemical tests are required for final identification of the bacteria.

COMPOSITION

Ingredients	Gms / Ltr
Beef extract	3.000
Peptone	10.000
Sodium chloride	10.000
Acid fuchsin	0.020

PRINCIPLE

Peptone used in the medium is free from fermentable carbohydrates and is also free from nitrates which may interfere with gas production. Beef extract is an additional source of nutrients. Andrade indicator is a solution of acid fuchsin which changes colour from pink to yellow under alkaline conditions and yellow to pink under acidic conditions.

INSTRUCTION FOR USE

- Dissolve 23.02 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely and dispense in test tubes containing inverted Durhams tubes.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to room temperature and aseptically add sterile stock solution of carbohydrate to a final concentration of 0.5% to 1.0% (w/v).

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow coloured with pink tinge homogeneous free flowing powder.
Appearance of prepared medium : Light pink to straw coloured clear solution without any precipitate.
pH (at 25°C) : 7.2±0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid in absence of dextrose	Gas in absence of dextrose	Acid with added dextrose	Gas with added dextrose	Incubation Temperature	Incubation Period
Escherichia coli	25922	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction,,colour changes to pink-red	Positive reaction	35-37°C	18-24 Hours
Klebsiella pneumoniae	13883	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction,,colour changes to pink-red	Positive reaction	35-37°C	18-24 Hours
Proteus vulgaris	13315	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction	Positive reaction	35-37°C	18-24 Hours
Salmonella Typhi	6539	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction	Positive reaction	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction	Positive reaction	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction	Negative Reaction	35-37°C	18-24 Hours
Shigella sonnei	25931	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction	-	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
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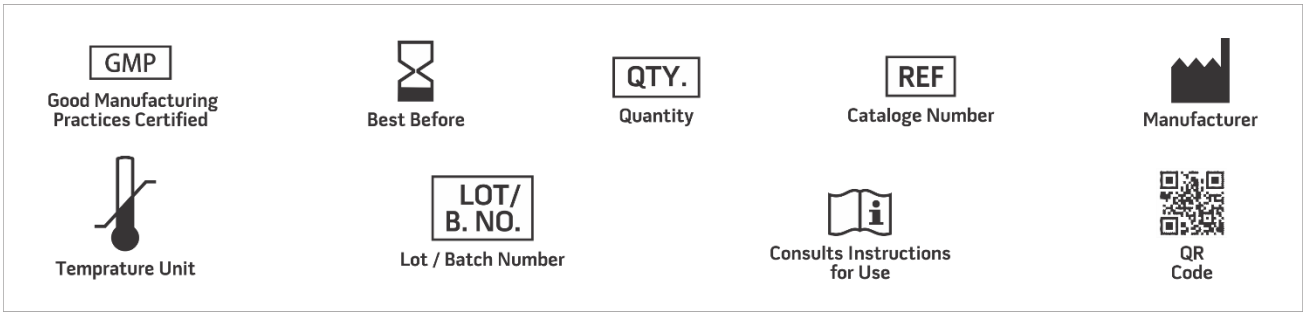
2.Cowan, S.T, and K.J Steel. 1974. Manual of Identification of Medical Bacteria. 2 ed.: Cambridge United Press.
3.FDA, U.S. 1998. Bacteriological Analytical Manual. 8 ed. Gaithersburg, MD: AOAC International.
4.Finegold, and Baron. 1986. Bailey and Scott's Diagnostic Microbiology. 7 ed. St. Louis.: The C.V. Mosby Company.
5.Murray, P. R, E. J Baron, J. H Jorgensen, M. A Pfaller, and R. H Yolken. 2003. Manual of Clinical Microbiology. 8 ed. Washington, D.C: ASM.



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

***For Lab Use Only**

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