CM 20,078 – ANDRADE PEPTONE WATER

INTENDED USE
Abasal medium to study fermentation reactions by adding carbohydrates.

PRODUCTSUMMARY ANDEXPLANATION
Bacteria differ widely intheir ability to metabolize carbohydrates and related compounds. Carbohydrate fermentation reactions aids in the differentiation and identification of various bacteria. Andrade Peptone Water is the most commonly used media for carbohydrate fermentation. 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 aseptically added to sterile Andrade Peptone Water. Use fresh cultures of organisms only which have been presumptively identified by Gram staining and colony morphology. The biochemical identification of organisms capable of growing in this medium is made by various sugar fermentation results.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	10.000
Sodium chloride	5.000
Andrade indicator	0.100

PRINCIPLE
Thepeptoneused in the medium is free from fermentable carbohydrates (1,5) and the medium is also free from nitrates which may interfere with gas production. Andrade indicator is a solution of acid fuchsin which when titrated with sodium hydroxide; changes colour from pink to yellow. The Andrade indicator changes colour from yellow to pink as the pH decreases.

INSTRUCTION FOR USE
Dissolve 15.1grams in 1000 ml purified / 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)	: 7.4±0.2

INTERPRETATION
Culturalcharacteristics 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, colour changes to pink red	Positive reaction	35-37°C	18-24 Hours
Salmonella Typhi	6539	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction, colour changes to pink red	Negative reaction	35-37°C	18-24 Hours
Salmonella Typhimurium	14028	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction, colour changes to pink red	Positive reaction	35-37°C	18-24 Hours
Shigella flexneri	12022	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction, colour changes to pink red	Negative reaction	35-37°C	18-24 Hours
Shigella sonnei	25931	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction, colour changes to pink red	Negative reaction	35-37°C	18-24 Hours

PACKAGING:

Inpacksizeof100 gm and 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

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

REFERENCES

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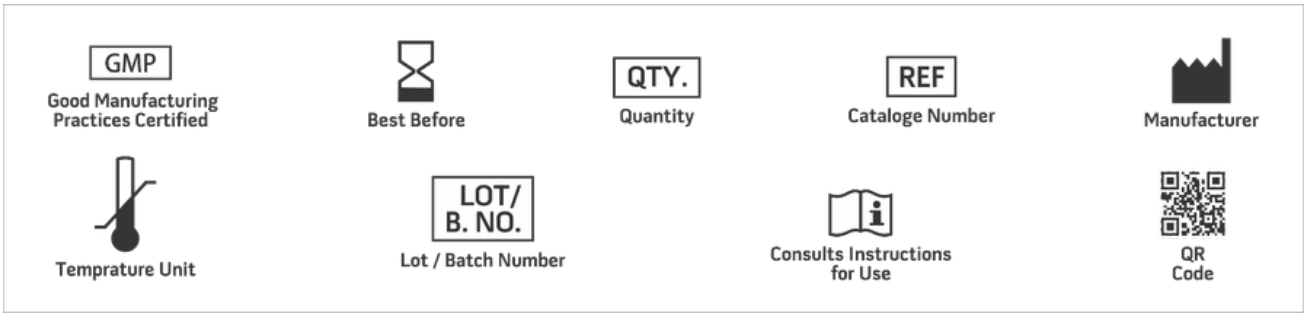
3 MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
4. Murray P. R., Baron E. J., Jorgensen J. H., Pfaller M. A., Yolken R.H., (Eds.), 8th Ed., 2003, Manual of Clinical Microbiology, ASM, Washington, D.C.
5. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.



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

*For Lab Use Only