Technical Data

Andrade Peptone Water

LQ174

Intended use

Sterile, recommended as a base for carbohydrate fermentation reaction study of pure cultures of microorganisms.

Composition**

Ingredients	g / L
Peptone	10.000
Sodium chloride	5.000
Andrade indicator	0.100
Final pH (at 25°C)	7.4±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Label the ready to use LQ174 bottle. Remove the top of the cap. Inoculate 50-100 cfu sample and incubate at specified temperature and time.

Principle And Interpretation

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 is the most commonly used media for carbohydrate fermentation (1). 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 peptone used in the medium is free from fermentable carbohydrates (1,2) 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 (1). 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. The biochemical identification of organisms capable of growing in this medium is made by various sugar fermentation results (2,3).

Use fresh cultures of organisms only which have been presumptively identified by Gram staining and colony morphology. For final identification further biochemical tests are required.

Type of specimen

Pure isolate from clinical and non clinical samples

Specimen Collection and Handling

For pure isolate samples, follow appropriate techniques for sample collection and processing as per guidelines (4,5). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use. For professional use only. Read the label before opening the container. Wear protective gloves/ protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations

1. Further biochemical characterization is required to be carried out for complete identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
Sterile Andrade Peptone Water in bottle.

Colour
Light pink to straw coloured clear solution without any precipitate.

Quantity of Medium
5 ml of medium in bottle.

pH
7.20-7.60

Sterility Check
Passes release criteria

Cultural Response
Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Growth	Acid in absence of dextrose	Acid with added dextrose
Escherichia coli ATCC 25922 (00013*)	Luxuriant	Negative reaction	positive reaction, colour changes to pink red
Klebsiella pneumoniae ATCC 13883 (00097*)	Luxuriant	Negative reaction	positive reaction, colour changes to pink red
## *Proteus hauseri* ATCC 13315	Luxuriant	Negative reaction	positive reaction, colour changes to pink red
Salmonella Typhi ATCC 6539	Luxuriant	Negative reaction	positive reaction, colour changes to pink red
Salmonella Typhimurium ATCC 14028 (00031*)	luxuriant	Negative reaction	positive reaction, colour changes to pink red
Shigella flexneri ATCC 12022 (00126*)	Luxuriant	Negative reaction	positive reaction, colour changes to pink red
Shigella sonnei ATCC 25931	Luxuriant	Negative reaction	positive reaction, colour changes to pink red

Key: (*) Corresponding WDCM numbers ## Formerly known as *Proteus vulgaris*

Storage and Shelf Life

Store between 2-8°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (4,5).

Reference

1. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
2. Cowan S. T. and Steel K. J., 1974, Manual of Identification of Medical Bacteria, 2nd Ed., Cambridge United Press.
3. 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.
4. Isenberg, (Ed.), 1992, Clinical Microbiology Procedures Handbook, Vol. I, American Society for Microbiology, Washington, D.C.
5. 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.

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HiMedia Laboratories Pvt. Limited,
Plot No.C-40, Road No.21Y,
MIDC, Wagle Industrial Area,
Thane (W) -400604, MS, India

EC REP
CEpartner4U, Esdoornlaan 13,
3951DB Maarn, NL
www.cepartner4u.eu

IVD ***In vitro* diagnostic medical device**

CE Marking

2°C 8°C **Storage temperature**

Do not use if package is damaged

Disclaimer :

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