

## TM 936- ANDRADE PEPTONE WATER (IS: 5887 (Part I and IV) 1976, reaffirmed 2005)

### INTENDED USE

A basal medium to study fermentation reactions by adding carbohydrates.

### PRODUCT SUMMARY AND EXPLANATION

Andrade Peptone Water is a basal medium used for studying the various carbohydrate fermentation patterns of different organisms including *Vibrio cholerae* and *V.parahaemolyticus*. It is recommended by BIS for the isolation and detection of *E.coli* from food.

### COMPOSITION

Ingredients	Gms / Ltr
Peptic digest of animal tissue	10.000
Sodium chloride	5.000
Andrade indicator	0.100

### PRINCIPLE

Peptic digest of animal tissue which provides nitrogen and carbon source for the growth of microorganisms. Sodium chloride is added to maintain the osmotic balance. 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. 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.

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.

### INSTRUCTION FOR USE

- Dissolve 15.1 grams in 1000ml distilled water.
- Gently heat to boiling with gentle swirling and dissolve the medium completely.
- Dispense in tubes containing inverted Durhams tubes.
- Sterilize by autoclaving at 10 psi (121°C) for 20 minutes.
- Cool to room temperature.
- Aseptically add sterile stock solution of carbohydrate to a final concentration of 1.0% (w/v).

### QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder	:	Light yellow coloured with pink tinge, homogeneous free flowing powder
Appearance of Prepared medium	:	Light pink coloured to straw colour solution without any precipitate
pH (at 25°C)	:	7.4± 0.2

### INTERPRETATION

Cultural characteristics observed after incubation at 35-37°C for 18 – 24 Hours.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Acid in absence of dextrose	Gas in absence of dextrose	Acid with added dextrose	Gas with added dextrose
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<i>Escherichia coli</i>	25922	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction, colour changes to pink red	Positive reaction
<i>Klebsiella pneumoniae</i>	13883	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction, colour changes to pink red	Positive reaction
<i>Salmonella Typhi</i>	6539	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction, color changes to pink red	Negative reaction
<i>Proteus vulgaris</i>	13315	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction, color changes to pink red	Positive reaction
<i>Salmonella Typhimurium</i>	14028	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction, color changes to pink red	Positive reaction
<i>Shigella flexneri</i>	12022	50-100	Luxuriant	Negative reaction	Negative reaction	Positive reaction, color changes to pink red	Negative reaction

#### PACKAGING

In 100 & 500 gm packaging size.

#### STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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 powder if they show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

#### DISPOSAL

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

#### REFERENCES

1. Edel, W., and E. H. Kampelmacher. Bull World Hlth. Org. 48:167-174. (1973).
2. Angelotti, R. Microbiological quality of foods. Academic Press, New York. (1963).
3. Edel and Kampelmacher. Bull. W.H.O. 48:167. (1973).
3. Bureau of Indian Standards, IS : 5887 (Part - V) 1976.
4. Cowan S.T. and Steel K.J., 1974, Manual of Identification of Medical Bacteria, 2nd ed., Cambridge United Press.
5. MacFaddin J.F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol.I, Williams and Wilkins, Baltimore.

 Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

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

**\*For Lab Use Only**  
Revision: 05<sup>th</sup> Oct. 2019



