

BacterLab Division



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**BacterTube™  
Peptone Water**

## **ENRICHMENT MEDIUM**

### **BacterTube™ Peptone Water**

**Microbial enrichment medium or as a basic carbohydrate fermentation medium.**

**Code: 08040**



## 1. INTENDED USE

**BacterTube™ Peptone Water** is used for the culture of microorganisms with no particular growth requirements. This media is specifically used for the Mackenzie test for the identification of *Escherichia coli* via indole production.

## 2. PRINCIPLES

Under aerobic conditions, *Escherichia coli* degrade tryptophan to indole through the action of a tryptophanase. The indole that is produced is detected using Kovacs reagent.

## 3. TYPICAL COMPOSITION

For 1 liter of medium

|                 |        |
|-----------------|--------|
| Peptone         | 10,0 g |
| Sodium chloride | 5,0 g  |
| Soluble starch  | 1,5 g  |

**pH of the ready-to-use medium at 25°C: 7,3 ± 0,2**

## 4. PREPARATION

- The liquid medium tubes are ready-to-use, no preparation required.

## 5. INSTRUCTIONS FOR USE

- Transfer a loop of enrichment broth to a pre-heated tube (44°C) of Peptone broth.
- Incubate at 44 ± 1 °C for 48 hours.
- Add 0.5 mL of indole reagent and mix well.
- Observe the tube after 1 minute.

## 6. RESULTS

- Based on the turbidity of the tube, the growth ability of strain can be determined.
- If performing the indole test, shake the tube well and observe the phenomenon on the surface of the medium:
  - o Positive Reaction: Amber to red color (indole activity detected).
  - o Negative Reaction: No color change (brownish remains).

## 7. QUALITY CONTROL

**BacterLab** ensures the quality of each product batch by testing with ATCC reference strains.

| Reference strains                  | Incubation conditions    | Expected results                  |
|------------------------------------|--------------------------|-----------------------------------|
| <i>Escherichia Coli</i> ATCC 25922 | 18 – 24 hours, 35 – 37°C | Red medium: Indole positive       |
| No bacterial                       |                          | Unchanged medium: Indole negative |

## 8. STORAGE AND TRANSPORT CONDITIONS

- Storage: 2 – 8°C.
- Transportation: Ambient temperature.

## 9. PACKAGING

- Packaging: 50 tubes/ box or as per customer request.

#### **10. SHELF LIFE**

- Expiration Date: 6 months from the manufacturing date.

#### **11. BIBLIOGRAPHY**

- Rodier, J. 1984. L'analyse de l'eau. Dénombrement des coliformes, coliformes fécaux et Escherichia coli présumés. Dunod 7ème Ed., 793-798.
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- NF ISO 7251. Juillet 2005. Microbiologie des aliments. Méthode horizontale pour la recherche et le dénombrement d'Escherichia coli présumés. Technique du nombre le plus probable.