



## HIculture™ Transport Swab w/ 0.1% Peptone Water

MS028

Recommended for recovery of microorganisms.

### Composition\*\*

Ingredients	Gms / Litre
Peptone	10.000
Sodium chloride	5.000

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Using the capped swab, provided along with the media containing tube, collect the sample to be transported. Discard the cap of the tube and insert the capped swab with the sample till the bottom of the medium. Tighten the cap firmly. The specimen will be preserved during transportation and also the viability of the organisms will be maintained but it will diminish over the time. Some growth of contaminants may occur during longer period of transport. After the transportation, the specimen should be inoculated in proper medium as soon as possible. The cultures on transport swabs must not be kept at room temperature for more than 24 hours.

### Principle And Interpretation

Peptone Water is particularly suitable as a substrate in the study of indole production. Peptic digest of animal tissue used in Peptone Water is rich in tryptophan content. Presence of indole can be demonstrated using either Kovacs or Ehrlich reagent. Peptone Water is also utilized as a base for carbohydrate fermentation studies with the addition of sugar and indicators such as bromocresol purple, phenol red or bromothymol blue.

Peptone Water is recommended (1, 2, 3) for studying the ability of an organism to ferment a specific carbohydrate which aid in differentiation of genera and species. Peptone water is formulated as per Shread, Donovan and Lee (4). Peptone Water with pH adjusted to 8.4 is suitable for the cultivation and enrichment of *Vibrio* species.

Peptic digest of animal tissue provides essential nutrients. Sodium chloride maintains the osmotic balance of the medium. To study the fermentation ability of carbohydrates, saccharose, rhamnose, salicin are generally added in 0.5% amount separately to the basal medium before or after sterilization. The acidity formed during fermentation can be detected by addition of phenol red indicator, which shows a colour change of the medium from red to yellow under acidic conditions. If desired, Durhams tube may be used to detect the gas production if produced.

### Quality Control

#### Appearance

Sterile 0.1% Peptone water in tube with Sterile Cotton Swabs.

#### Colour

Clear colourless solution

#### Quantity of Medium

5 ml of medium in tubes

#### Reaction

7.00- 7.40

#### Sterility test

Passes release criteria

#### Cultural response

Viability of following was established for a period of 24 hours. Organisms grew luxuriantly when recovered on Tryptone Soya Agar (M290) and incubates at 35-37°C for 18-24 hours.

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<b>Organism</b>	<b>Recovery</b>
<i>Escherichia coli</i> ATCC 25922	luxuriant
<i>Salmonella Typhimurium</i> ATCC 14028	luxuriant
<i>Staphylococcus aureus</i> ATCC 25923	luxuriant

### Storage and Shelf Life

On receipt ,all the above products to be stored between 5-25°C

### Reference

1. MacFaddin J., 1980, Biochemical Tests for Identification of Medical Bacteria, 2nd ed., Williams and Wilkins, Baltimore.
2. Finegold and Baron, 1986, Bailey and Scotts Diagnostic Microbiology, 7th ed., The C.V. Mosby Co., St. Louis.
3. Lennette and others (Eds.), 1985, Manual of Clinical Microbiology, 4th ed, ASM, Washington, D.C.
4. Shread P., Donovan T.J, and Lee J.V, (1981), Soc. Gen. Microbiol. Q., 8, 184.

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