Specimen Preservative Medium Base (SP Hajna)

M300

Specimen Preservative Medium (SP Hajna) is used for collection, transportation and preservation of stool specimens or rectal swabs for the isolation of members of *Enterobacteriaceae* .

Composition**

Ingredients	Gms / Litre
Yeast extract	1.000
Ammonium phosphate	4.000
Monopotassium phosphate	2.000
Sodium chloride	5.000
Sodium citrate	5.000
Magnesium sulphate	0.400
Sodium deoxycholate	0.500
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 17.9 grams in 700 ml distilled water. Heat if necessary to dissolve the medium completely. Add 300 ml of neutral glycerol. Mix well and dispense as desired. Sterilize by autoclaving at 115°C for 15 minutes.

Principle And Interpretation

Specimen Preservative Medium (SP Hajna) is designed for transport and preservation of clinical specimen. Transport media were primarily developed by Moffet et al (1) and Stuart et al (2) for carrying *gonococcal* specimens. Transport media are chemically defined, semisolid, non-nutritive, phosphate buffered media that provide a reduced environment. These media are formulated to maintain the viability and/ or infectivity of the microorganisms without significant growth during the period between collection and culture of the specimen. This medium is suitable for preserving gram-negative rods such as *Salmonella* , *Shigella* and *Klebsiella* . In comparative studies using Specimen Preservation Medium Base and glycerin preservation solution for different *Salmonella* , *Shigella* and *Klebsiella* strains, it was observed that preservation of organisms were twice more effective in Specimen Preservation Medium Base.

Specimen Preservative Medium is made inhibitory for gram-positive organisms by sodium deoxycholate and sodium citrate. Sodium, magnesium, potassium salts control permeability of bacterial cells. Sodium chloride helps in maintaining osmotic balance in medium. Yeasts extract acts as the source of nitrogen, vitamins and growth factors.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Light amber coloured clear solution

Reaction
Reaction of 1.79% w/v aqueous solution at 25°C. pH : 7.0±0.2

pH
6.80-7.20

Cultural Response
M300: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Recovery (on Soyabean Casein Digest Agar

Cultural Response

Enterobacter aerogenes ATCC 13048	50-100	good-excellent, no increase in number
Escherichia coli ATCC 25922	50-100	good-excellent, no increase in number
Klebsiella pneumoniae ATCC 13883	50-100	good-excellent, no increase in number
Shigella flexneri ATCC 12022	50-100	good-excellent, no increase in number
Salmonella Typhimurium ATCC 14028	50-100	good-excellent, no increase in number

Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. Moffett M., Young D. and Stuart R. D., 1948, Brit, Med. J., 2:241.
2. Stuart S. D., Toshach S. R. and Patsula T. M., 1954, Can. J. Public Health, 45:73.

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