**Vogel Johnson Agar**

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| **Product No.** | **Product Category** | **Specification** |
| HCM046 | Dehydrated Culture Medium | 500g/bottle |

**Intended Use**

For the detection of coagulase-positive and mannitol-utilizing *Staphylococci.*

**Principle and Interpretation**

Pancreatic digest of casein provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group. Dipotassium hydrogen phosphate provides buffering to the medium. During the first 24 hours, contaminating organisms are almost inhibited by tellurite, lithium chloride and high glycine content. The effect of inhibitors on *S.aureus* is reduced because of the presence of mannitol and glycine. Coagulase-positive staphylococci reduce potassium tellurite to metallic free tellurium and thus produce black colonies surrounded by yellow zones. This yellow color is due to phenol red indicator that turns yellow in acidic condition due to mannitol fermentation. If mannitol is not fermented, yellow zones are not formed. Also, the color of the medium around the colonies may even be a deeper red than normal due to utilization of the peptones in the medium. Prolonged incubation may result in growth of black coagulase-negative colonies.

**Formulation**

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| **Ingredients** | **/liter** |
| Pancreatic digest of casein | 10.0g |
| Yeast extract | 5.0g |
| D-Mannitol | 10.0g |
| Dipotassium hydrogen phosphate | 5.0g |
| Lithium chloride | 5.0g |
| L-Glycine | 10.0g |
| Agar | 16.0g |
| Phenol red | 25.0mg |
| pH7.1±0.2 at 25°C |

**Preparation**

Suspend 61g in 1L of distilled water , stirring heated to boiling to completely dissolve ,autoclave at 121℃ for 15 minutes.Cool to 50℃and add 20 mL of sterile 1% potassium tellurite . Do not heat the complete medium.

**Quality Control**

Cultural characteristics observed after incubation at 35-37°C for 24 -48hours

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| **Quality control strains** | **Expected Results** | **Colony Color** |
| *Staphylococcus aureus subsp. Aureus* ATCC6538 | Good | black with yellow halo |
| *Staphylococcus epidermidis* CMCC(B)26069 | Good | translucent to blackish |
| *Proteus mirabilis* CMCC(B)49005 | Good | black |
| *Escherichia coli* ATCC25922 | - | - |

**Storage and Shelf Life**

2-30℃，Keep container tightly closed, avoid direct sunlight.

Use before expiry date on the label.

 **Precautions**

1. When weighing the dehydrated medium, please wear masks to avoid causing respiratory system discomfort

2. Keep container tightly closed after using to prevent clumping.

**Waste Disposal**

Microbiological contamination was disposed by autoclaving at 121°C for 30 minutes.

**Revision**

On June 14, 2024

**References**

United States Pharmacopeia, 2019.

FDA Bacteriological Analytical Manual, 2016, AOAC,