Vogel Johnson Agar Base w/o Tellurite

Intended Use
Vogel Johnson Agar Base w/o Tellurite with the addition of potassium tellurite is recommended for isolation of *Staphylococcus aureus* from clinical and non-clinical specimens.

Summary
Staphylococcus aureus, a Gram-positive, spherical bacterium, is a common colonizer of the human skin and mucosa. It causes skin and wound infections, urinary tract infections, pneumonia and bacteremia. It is also commonly implicated in food poisoning. It is also found as a common contaminant in pharmaceutical and cosmetics products.
Vogel Johnson Agar is prepared according to the formula devised by Vogel and Johnson and is recommended for the microbial limit test in USP. Originally it was developed by Zebovitz, as a Tellurite Glycine Agar, a selective medium for the detection of coagulase-positive Staphylococci. Vogel Johnson modified the medium by the addition of phenol red as a pH indicator and by increasing the quantity of mannitol. Selection and differentiation of coagulase-positive Staphylococci on V.J. Agar is based on mannitol fermentation and tellurite reduction. V.J. Agar is specified in the standard methods for examination of cosmetics, pharmaceutical articles and nutritional supplements. In addition, the formulation complies with recommendations by the USP for microbial limit testing.

Principle
Pancreatic digest of casein and yeast extract provide nitrogenous compounds, vitamin B complex and other growth nutrients. Phosphate provides buffering to the medium. During the first 24 hours of incubation, 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 colour is due to phenol red indicator that turns yellow in acidic condition due to the fermentation of mannitol.

Formula*
Ingredients	**g/L**
Mannitol	10.0
Pancreatic Digest of Casein	10.0
Glycine	10.0
Yeast Extract	5.0
Lithium Chloride	5.0
Dibasic Phosphate	5.0
Phenol Red	0.025
Agar	16.0
Final pH (at 25°C)	7.2 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of Specimen
Clinical samples; Food and Dairy samples.

Specimen Collection and Handling
Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions

1. Suspend 61.02 g of the powder in 1000 mL purified / distilled water and mix thoroughly.
2. Boil with frequent agitation to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. Cool to 45°C-50°C and add 20 mL of sterile 1% Potassium Tellurite solution (204160730010).
5. Mix well and pour into sterile petridishes.

Quality Control

Dehydrated Appearance: Light pink coloured, homogenous, free flowing powder.
Prepared Appearance: Red coloured, clear to slightly opalescent get forms in petridishes.
Cultural Response: Cultural characteristics observed after an incubation of 24-48 hours at 30-35°C.

Organism (ATCC)	**Growth**	**Colour of Colony**	**Mannitol Fermentation**
Escherichia coli (25922)	Inhibited	-	-
Proteus mirabilis (25933)	Partial Inhibition	Black	Negative
Staphylococcus aureus subsp. *aureus* (25923)	Good	Black with yellow halo	Positive
Staphylococcus epidermidis strain PCI 1200 (12228)	Good	Translucent	Negative

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Precautions / Limitations

If mannitol is not fermented, yellow zones are not formed. Also, the colour 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 the growth of black coagulase-negative colonies.

Warranty

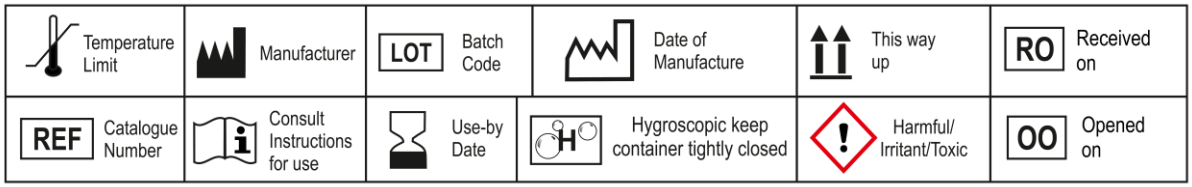
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Vogel R. A. and Johnson M. J., 1960, Public Health Lab. 18:131.
2. United States Pharmacopeia, 2008. United States Pharmacopeial Convention, Inc., Rockville, Md.
3. Zebovitz E., Evans J. B. and Niven C. F., 1955, J. Bacteriol., 70:686.
4. FDA Bacteriological Analytical Manual, 2005, 18th Ed., AOAC, Washington, D.C.
5. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat. No.	Product Description	Pack Size
201220080100	Dehydrated Culture Media	100 g
201220080500	Dehydrated Culture Media	500 g



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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.