Chaitanya Group Of Industries

ReadyMED®
Dehydrated Cell Culture Media

Technical Data Sheet

Vogel-Johnson Agar Medium

RDM-VJA-01

Principle
Vogel-Johnson agar medium (VJ medium) is composed of tryptone, yeast extract, mannitol, dipotassium phosphate, lithium chloride, glycine, phenol red and agar. Tryptone and yeast extract provide nitrogenous and carbonaceous compounds, long chain amino acids, vitamin B complex and other growth nutrients. Mannitol is source of carbon. Dipotassium phosphate acts as buffering agent. Lithium chloride and glycine inhibits most of microorganisms except staphylococci. Phenol red is pH indicator. Agar is solidifying agent.
The addition of tellurite 1% provides more selectivity to the medium for isolation of staphylococci. After 24 hours of incubation, most of contaminating organisms are almost inhibited by tellurite, lithium chloride and high glycine content. Staphylococcus aureus also be inhibited by these inhibitors but get compensated by Mannitol and glycine. VJ Agar selects and differentiates the coagulase positive staphylococci which ferment mannitol and reduce tellurite.

Use: Recommended for selective isolation of mannitol fermenting *Staphylococcus aureus* from heavily contaminated food and clinical specimens (after addition of potassium tellurite).

Contents*

Ingredients	**Gram/Litre**
Tryptone	10.00
Yeast Extract	5.00
Mannitol	10.00
Dipotassium Phosphate	5.00
Lithium Chloride	5.00
Glycine	10.00
Phenol Red	0.025
Agar	15.00
pH at 25˚C	7.2 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 60.00 grams in 1000 ml distilled water. Boil to dissolve the medium completely and sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 min, cool it to 42-45 °C, add 20ml of tellurite solution mix well and distribute aseptically in petri plates. Ensure complete solidification and inoculate test sample aseptically.

Specimens' types analyzed
Pharmaceutical samples, clinical and non-clinical samples etc.

Precautions to be taken
These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation
The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Dark beige colored free flowing, homogeneous powder
Reaction of 6.0% solution	7.2 ±0.2 at 25 ˚C
pH	7.00- 7.40
Gelling	Firm comparable with 1.5% agar gel
Color and clarity of ready medium	Slightly reddish colored opalescent gel
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 ºC for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Prepare media as per label directions with the addition of Tellurite Solution, 1%. Inoculate and incubate the plates at 33 -37 °C for 18-48 hours.

Organism	Inoculum	Growth	Recovery	Mannitol fermentation	Tellurite reduction
Staphylococcus aureus (ATCC 25923)	50-100	Luxurious	70-80%	Positive (Yellow)	Positive (Black)
Proteus vulgaris (ATCC 6380)	50-100	Poor	10-15%	Negative (red)	Positive (Black)
Escherichia coli (ATCC 8739)	50-100	Inhibited	---	----	---

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. *Difco Manual* (1998). 11th Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.

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