

PRODUCT INFORMATION

Vogel and Johnson Agar

Cat. No. V22-103



ALPHA[™]
BIOSCIENCES

Date of Issue:
10/01/17

DESCRIPTION

Vogel & Johnson medium was developed by Vogel and Johnson as a modification of the Tellurite Glycine Agar Medium described earlier by Zabovitz, Evans, and Niven. Vogel and Johnson increased the mannitol content of the tellurite glycine agar and added a pH indicator, phenol red, to enable the detection of mannitol fermentation, a differentiating characteristic of most strains of *Staphylococcus aureus*. Coagulase-positive strains of *S. aureus* form characteristic black colonies on the medium due to the reduction of tellurite. Colonies of mannitol-fermenting strains will be surrounded by a yellow zone. The Association of Official Agricultural Chemists (AOAC) has recommended the medium for detection of *S. aureus* in foods. Due to the high selectivity of the medium and the sensitivity, Vogel-Johnson Medium may be used for the rapid detection of *S. aureus* in clinical specimens when the detection of the etiologic agent is of singular importance. Other microorganisms are easily distinguished by their inability to produce black colonies. Selective agents incorporated in the medium are glycine and lithium chloride, which inhibit growth of most other microorganisms. Potassium tellurite is added to the prepared medium. The tellurite salt is an inhibitory agent and is easily reduced by the coagulase-positive Staphylococci leaving a black precipitate in the colony.

Formula* per Liter:

Enzymatic Digest of Casein	12.0g
Yeast Extract	5.0g
Lithium Chloride	5.0g
Phenol Red	0.025g
Mannitol	10.0g
Dipotassium Phosphate	5.0g
Glycine	10.0g
Agar	13.0g

Final pH: 7.2 ± 0.2 at 25°C

* Grams per liter may be adjusted or formula supplemented to obtain desired performance.

PREPARATION

Mix 60 grams of the medium in a Liter of purified water until evenly dispersed. Heat with repeated stirring and heat to boiling to dissolve completely. Distribute and autoclave at 121.0°C for 15 minutes. Cool to 50°C and add 20 mL of a sterile 1% Potassium Tellurite solution. Mix thoroughly before dispensing.

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QUALITY CONTROL SPECIFICATIONS

1. The powder is homogeneous, free flowing, and beige to beige with pink tint.
2. Visually the prepared medium is clear to slightly hazy and reddish orange.
3. Expected cultural response after 18-48 hours at 35°C.

Organism	Growth
<i>Escherichia coli</i> ATCC® 25922	Completely inhibited
<i>Staphylococcus aureus</i> ATCC® 25923	Growth, Black colonies, yellow zones
<i>Staphylococcus epidermidis</i> ATCC® 12228	Growth, gray black colonies
<i>Enterococcus faecalis</i> ATCC® 29212	Growth Inhibited

STORAGE

Store the sealed bottle containing the dehydrated medium at 2 to 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed from the original color.