

Fluid Thioglycollate Medium VEG

Intended Use

Fluid Thioglycollate Medium VEG is a medium used for sterility testing of biologicals and cultivation of aerobes, anaerobes and microaerophiles.

Summary

Food poisoning by *Clostridium perfringens* is one of the most common types of human food borne illness. The foods usually involved are cooked meat or poultry products containing large numbers of viable cells. A heat-labile enterotoxin produced only by sporulating cells induces the major symptoms of diarrhea in perfringens poisoning.

Principle

Veg Hydrolysate, yeast extract and L-cystine provide sources of nitrogen, carbon and other growth factors while dextrose is the carbohydrate source. Sodium chloride provides essential ions and maintains the osmotic balance. Sodium thioglycollate is a reducing agent, which prevents the accumulation of peroxides that is lethal to bacterial growth and neutralizes the antibacterial effect of mercurial preservatives. L-cystine is also a reducing agent, since it contains sulphhydryl groups that inactivate heavy metal compounds, which exert a bacteriostatic effect in the materials under examination, and also maintains a low redox potential, thereby maintaining anaerobiosis. Resazurin is the oxidation-reduction indicator; increased oxidation raises the Eh, causing resazurin to change colour to red. The small amount of added agar assists in maintaining a low redox potential by stabilizing the medium, thereby maintaining anaerobiosis in the lower depths of the medium.

Formula*

Ingredients	g/L
Veg Hydrolysate	15.0
Yeast Extract	5.0
Dextrose (Glucose)	5.5
Sodium Chloride	2.5
L-Cystine	0.5
Sodium Thioglycollate	0.5
Resazurin Sodium	0.001
Agar	0.75
Final pH (at 25°C)	7.1 ± 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.

Type of specimen

Food 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 29.75 g of the powder in 1000 mL purified / distilled water.
2. Heat to boiling to dissolve the powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes.
4. Cool to 25°C and store in a cool dark place preferably below 25°C.

Note: If more than the upper one-third of the medium has acquired a pink colour, the medium may be restored once by heating in a water bath or in free flowing steam until the pink colour disappears.

Quality Control

Dehydrated Appearance: Light yellow to yellow coloured, homogenous, free flowing powder.

Prepared Appearance: Light straw coloured, very slightly opalescent solution with upper portion less than 10% medium turning pink on standing.

Growth Promotion Test: Growth promotion was carried out in accordance with the method of IP and growth was observed after an incubation at 30°C - 35°C for ≤ 3 days.

Growth promoting properties: The test results observed are within the specified temperature and shortest period of time, inoculating 10 - 100 cfu (at 30°C - 35°C for ≤ 3 days).

Organisms (ATCC)	Growth
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> (6538)	Good
<i>Pseudomonas aeruginosa</i> (9027)	Good
<i>Kocuria rhizophila</i> Strain PCI 1001 (9341)	Good
<i>Bacteroides vulgatus</i> (8482)	Good
<i>Clostridium sporogenes</i> (11437)	Good
<i>Clostridium sporogenes</i> (19404)	Good

Performance and Evaluation

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

1. Directions
2. Storage
3. Expiry

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. Brewer, 1940, J. Am. Med. Assoc., 115:598.
2. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201060420500	Dehydrated Culture Media	500 g

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.
