Technical Information

Wilson Blair MiVeg Agar w/ BG

Product Code : VM1332

Application:- Wilson Blair MiVeg Agar with Brilliant Green (BG) is recommended for the isolation and preliminary identification of *Salmonella* serotype Typhi from clinical specimens.

Composition**

Ingredients	Gms / Litre
MiVeg peptone	10.0
MiVeg extract	5.0
Dextrose	5.0
Disodium phosphate	4.0
Ferrous sulphate	0.3
Bismuth sulphite indicator	8.0
Brilliant green	0.025
Agar	20.0
Final pH (at 25°C)	7.7 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretationss

Wilson Blair MiVeg Agar with Brilliant Green is prepared by adding MiVeg peptone and MiVeg extract in place of Casein enzymic hydrolysate and Beef extract thereby making the medium BSE/TSE risks free. Wilson and Blair MiVeg Agar is the modification of Wilson and Blair Agar which was formulated by Wilson and Blair (1) for isolating *Salmonella* species especially *Salmonella* serotype Typhi from clinical specimens.

MiVeg peptone and MiVeg extract supply nitrogenous, carbonaceous compounds and certain other growth nutrients. Brilliant green inhibits gram-positive bacteria. Dextrose is the fermentable carbohydrate. Ferrous sulphate act as an hydrogen sulphide (H_2S) production indicator. Bismuth is a heavy metal which is inhibitory to most gram-negative enteric bacilli other than *Salmonella*. In presence of bismuth sulphite and dextrose, Salmonella species, reduces ferrous sulphate to iron sulphide i.e., indicated by black coloured colonies. Reduction of bismuth ions to metallic bismuth produces a metallic luster around the colonies. The luster may appear after incubation of 48hrs (2).

Methodology

Suspend 52.32 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat to boiling with frequent agitation until the medium is dissolved completely. DO NOT AUTOCLAVE. Cool to 50-55°C. Mix well to suspend precipitate and pour thick plates (25 ml medium per plate). Dry the plates before use avoiding overdrying.

Quality Control

Physical Appearance

Greenish yellow coloured, homogeneous, free flowing powder.

Gelling

Firm, comparable with 2.0% Agar gel.

Colour and Clarity of prepared medium

Greenish yellow coloured, clear to slightly opalescent gel in petri plates

Reaction

Reaction of 5.23% w/v aqueous solution is pH 7.7 ± 0.2 at 25°C.

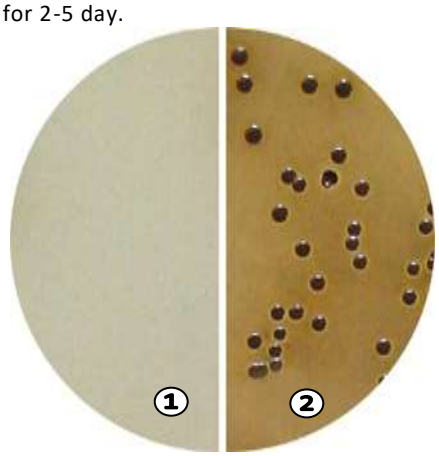
pH Range
7.5-7.9
Cultural Response/Characteristics
Cultural characteristics observed after an incubation at 35-37°C for for 24-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery	Colour of Colony
Escherichia coli (25922)	10^2-10^3	Inhibited	0%	-
Proteus mirabilis (25933)	10^2-10^3	Luxuriant	>50%	Green
Salmonella serotype Choleraesuis (12011)	10^2-10^3	Luxuriant	>50%	Black *
Salmonella serotype Enteritidis (13076)	10^2-10^3	Luxuriant	>50%	Black *
Salmonella serotype Typhi (6539)	10^2-10^3	Luxuriant	>50%	Black *
Salmonella serotype Typhimurium (14028)	10^2-10^3	Luxuriant	>50%	Black *
Staphylococcus aureus (25923)	10^2-10^3	Fair	<20%	-

Key : * = with metallic sheen

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 day.



VM1332 Wilson Blair MiVeg Agar w/ BG
1. Control
2. *Salmonella* serotype Enteritidis

Further Reading

1. Wilson and Blair, 1929, J. Pathol. Bacteriol., 29 : 310.
2. MacCOY J. H. : The isolation of Salmonellae J. Appl. Bact, 25; 213-224 (1962).

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conform solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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