Technical Information

Universal Beer MiVeg Agar (UB MiVeg Agar)

Product Code : VM1415

Application:- Universal Beer MiVeg Agar (UB MiVeg Agar) is recommended for the cultivation of microorganisms significant in the brewery industry.

Composition **

Ingredients	Gms / Litre
MiVeg hydrolysate No. 3	15.0
Yeast extract	6.1
Dextrose	16.1
Tomato juice	12.2
Dipotassium phosphate	0.31
Monopotassium phosphate	0.31
Magnesium sulphate	0.12
Sodium chloride	0.006
Ferrous sulphate	0.006
Manganese sulphate	0.006
Agar	12.0
Final pH (at 25°C)	6.3 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Universal Beer MiVeg Agar is prepared by adding MiVeg hydrolysate No.3 in place of Peptonized milk thus making the medium BSE/TSE risks free. This medium is the modification of Universal Beer Agar which is designed according to the formula developed by Kozulis and Page (1) for the cultivation of microorganisms which are significant in the brewing industry. Selectivity of medium can be enhanced by adding beer to the medium which in turn stimulates the growth of beer spoilage organisms. Beer contains hop constituents and ethyl alcohol which eliminates many airborne contaminants (2) and thus help in minimizing false positive results.

MiVeg hydrolysate No.3, yeast extract, dextrose and salts supplies all the essential growth nutrients. Tomato juice added to the medium, so as to maintain the acidic environment and it also act as a source of carbon, protein. Phosphate provides the buffering system to the medium. Magnesium sulfate, ferrous sulphate and manganese sulphate are the sources of ions that stimulate metabolism. This particular composition of the medium allows to recover undesired organisms that survives or grow during wort and beer manufacturing. Universal Beer MiVeg Agar supports the growth of *Lactobacillus, Pediococcus, Acetobacter* and yeast strains which may be found contaminating microbes of wort and beer.

Methodology

Suspend 62.16 grams of powder media in 750 ml distilled water. Mix thoroughly. Heat to boiling to dissolve the medium completely. 250 ml of beer is added to the hot medium without degassing. Mix gently and dispense as desired. Sterilize by autoclaving at 15 lbs pressure (121°C) for 10 minutes. If required, add 5 mcg/ml of Amphotericin B to sterile medium prior to dispensing.

Quality Control

Physical Appearance

Light yellow coloured, may have slightly greenish tinge, homogeneous, free flowing powder.

Gelling

Firm, comparable with 1.2% Agar gel.

Colour and Clarity of prepared medium

Medium amber coloured, clear to slightly opalescent gel forms in petri plates.

Reaction

Reaction of 6.22% w/v aqueous solution is pH 6.3 ± 0.2 at 25°C.

pH Range

6.1-6.5

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for for 40-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth	Recovery
Acinetobacter calcoaceticus (23055)	10^2-10^3	good-luxuriant	>70%
Lactobacillus acidophilus (4356)	10^2-10^3	good-luxuriant	>70%
Lactobacillus fermentum (9338)	10^2-10^3	good-luxuriant	>70%
Proteus vulgaris (13315)	10^2-10^3	fair-good	>50%

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.

Further Reading

1. Kozulis J.A. and Page H.E., 1968, Proc. Am. Soc. Brew. Chem., 52:58.
2. MacFaddin 1985, Media for isolation-cultivation-identification-maintenancemedical bacteria, Vol, I, Williams, & Wilkins, Baltimore, MD.

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.
- **Central Drug House Pvt. Ltd.** reserves the right to make changes to specifications and information related to the products at any time.
- Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing of diagnostic reagents extra.
- Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for in fingement of any patents.Do not use the products if it fails to meet specificatons for identity and performens parameters.