Technical Information

Shigella M i Veg Broth Base

Product Code : VM2326

Application:- Shigella MiVeg Broth Base is used for the cultivation of *Shigella* species from food.

Composition

Ingredients	Gms / Litre
MiVeg hydrolysate	20.0
Sodium chloride	5.0
Dipotassium hydrogen phosphate	2.0
Monopotassium hydrogen phosphate	2.0
Dextrose	1.0
Polysorbate 80	1.5
Final pH (at 25°C)	7.0 ± 0.2

** Formula adjusted, standardized to suit performance parameters.

Principle & Interpretation

Shigella MiVeg Broth Base is prepared by adding MiVeg hydrolysate in place of Casein enzymic hydrolysate thereby making the medium free from BSE/TSE risks. Shigella MiVeg Broth Base contains MiVeg hydrolysate which provides nitrogenous and carbonaceous nutrients required for the microbial growth. Dextrose serve as a fermentable carbohydrate. Dipotassium hydrogen phosphate and potassium dihydrogen phosphate buffers the medium. Sodium chloride maintains the osmotic balance of the medium. Polysorbate 80 besides acting as an emulsifier, also to a certain extent serves as a synthetic complex (oleic acid ester), carbon source. Novobiocin inhibits most of the gram-positive bacteria such as *Staphylococcus aureus* and certain gram-negative organisms such as *Haemophilus influenzae* and some species of *Proteus*.

Methodology

Suspend 31.5 grams of powder media in 1000 ml distilled water. Mix thoroughly and heat if necessary to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45 - 50°C and add 1 vial of rehydrated content of Shigella Selective Supplement (MS2108) under aseptic conditions. Mix well before dispensing into sterile test tubes.

Quality Control

Physical Appearance

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

Colour and Clarity of prepared medium

Light amber coloured, clear solution without any precipitate.

Reaction

Reaction of 3.15% w/v aqueous solution is pH 7.0 ± 0.2 at 25°C.

pH Range

6.8 - 7.2

Cultural Response/Characteristics

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Organisms (ATCC)	Inoculum (CFU)	Growth
Shigella dysenteriae (13313)	10^2-10^3	luxuriant
Shigella flexneri (12022)	10^2-10^3	luxuriant
Shigella sonnei (25931)	10^2-10^3	luxuriant
Staphylococcus aureus (25923)	10^2-10^3	Inhibited
Escherichia coli (25922)	10^2-10^3	inhibited

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. Atlas R.M., 1997, Handbook of Microbiological Media 2nd Edition, CRC Press, Boca Raton, New York, London, Tokyo.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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