

Technical Information

B.Q. Vaccine Medium (Thioglycollate Broth w/ Liver Extract)

Product Code: DM 1462

Application: - B.Q. Vaccine Medium (Thioglycollate Broth w/Liver Extract) is recommended for the cultivation of anaerobic organisms on large scale.

Composition**		
Ingredients	Gms / Litre	
Peptic digest of animal tissue	10.000	
Liver tissues	250.000	
Muscle tissues	250.000	
Sodium thioglycollate	1.000	
Dipotassium phosphate	4.000	
Sodium chloride	5.000	
Final pH (at 25°C)	8.2±0.2	
**Formula adjusted, standardized to suit performand	ce parameters	

Principle & Interpretation

Anaerobic microorganisms are known to be the constituents of the normal bacterial flora of human and animal organisms. Their pathogenic significance in medicine and important role in food hygiene have, however, long been underestimated for a longer time. During the past few years the importances of anaerobic microorganisms as pathogenic agents responsible for infectious diseases and the role they play in the microbial spoilage of food and water have been well documented B.Q. Vaccine Medium (Thioglycollate Broth with Liver Extract) is modification of original Thioglycollate medium ^{(1, 2),} recommended for the cultivation of anaerobic organisms on large scale. It is a nutritious medium due to the presence of peptic digest of animal tissue, liver tissues and muscle tissues.

Peptic digest of animal tissue supply the nitrogenous compounds and growth factors. Liver tissues and muscle tissues provide trace minerals, growth factors and vitamins for the growth of wide variety of organisms. Sodium thioglycollate acts as a reducing agent, which lowers the oxidation-reduction potential of the medium thereby enabling the obligate anaerobes to multiply. Added glucose, act as the source of energy. Dipotassium phosphate and sodium chloride helps in maintaining buffering action and isotonic conditions respectively in the medium.

Methodology

Suspend 30 grams of powder media in 1000 ml distilled water. Shake well & heat to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 50°C and aseptically add 0.5% sterile glucose solution. Mix thoroughly and then dispense as desired.

Quality Control

Physical Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Amber coloured, clear to very slightly opalescent solution.

Reaction

Reaction of 3.0% w/v aqueous solution at 25°C. pH : 8.2±0.2

pH range

8.00-8.40

Cultural Response/Characteristics

DM 1462: Cultural characteristics observed after an incubation at 35-37°C for 18-48 hours.





Organism	Inoculum (CFU)	Growth
perfringensATCC 12924	50-100	good-luxuriant
Clostridium sporogenes ATCC 11437	50-100	good-luxuriant
Streptococcus pyogenes ATCC 19615	50-100	good-luxuriant
Bacillus subtilis ATCC 6633	50-100	good-luxuriant
Micrococcus luteus ATCC 10240	50-100	good-luxuriant
Neisseria meningitidis ATCC 13090	50-100	good-luxuriant
Bacteroides vulgatus ATCC 8482	50-100	fair-good

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:** 2-8⁰ in sealable plastic bags for 2-5 days.

Further Reading

1. Brewer J. H., 1940, J. Am Med. Assoc., 115, 598.

2. Brewer J. H., 1940, J. Bacteriol. 39:10.

Disclaimer :

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