



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

M462

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

### Composition\*\*

Ingredients	Gms / Litre
Peptic digest of animal tissue	10.000
Liver tissues,infusion from	250.000
Muscle tissues,infusion from	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 performance parameters

### Directions

Suspend 30 grams in 1000 ml distilled water. Heat if necessary 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.

### Principle And Interpretation

Anaerobic microorganisms have long been known as constituents of the normal bacterial flora of human and animal organisms. Both their pathogenic significance in medicine and their important role in food hygiene have, however, long been underestimated. During the past few years the importance 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 better appreciated. Extremely different spectra of anaerobic organisms are of importance for the examination of food and in the clinical microbiology. 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.

### Quality Control

#### 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

8.00-8.40

#### Cultural Response

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

#### Cultural Response

Organism	Inoculum (CFU)	Growth
<b>Cultural Response</b>		
<i>Clostridium perfringens</i> ATCC 12924	50-100	good-luxuriant
<i>Clostridium sporogenes</i> ATCC 11437	50-100	good-luxuriant
<i>Streptococcus pyogenes</i> ATCC 19615	50-100	good-luxuriant
<i>Bacillus subtilis</i> ATCC 6633	50-100	good-luxuriant
<i>Micrococcus luteus</i> ATCC 10240	50-100	good-luxuriant
<i>Neisseria meningitidis</i> ATCC 13090	50-100	good-luxuriant
<i>Bacteroides vulgatus</i> ATCC 8482	50-100	fair-good

### Storage and Shelf Life

Store below 30°C in tightly closed container and the prepared medium at 2-8°C. Use before expiry date on the label.

### Reference

1. Brewer J. H., 1940, J. Am Med. Assoc., 115, 598.
2. Brewer J. H., 1940, J. Bacteriol. 39:10.

Revision : 1 / 2011



#### Disclaimer :

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