

**Brewer Thioglycollate Medium**

Brewer Thioglycollate Medium is used for testing the sterility of biological products and for isolation of aerobic and anaerobic organisms.

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| REF: V.1/TG01.100 100 GramREF: V.1/TG01.500 500 Gram  | REF: V.1/TG01.250 250 Gram |

**CLINICAL SIGNIFICANCE**

Brewer thioglycollate medium is prepared as per the original formula of Brewer (1, 2). Brewer Thioglycollate Medium contains Very nutritious proteose peptone and beef infusion which support the luxuriant growth of fastidious bacteria. Sodium thioglycollate helps to create anaerobic conditions and it neutralizes toxicity of mercurial compounds if they are present in the inoculum. A very small amount of agar present in the medium maintains the anaerobic conditions at the bottom of the broth. Methylene blue indicates oxygen content of the medium by exhibiting a bluish-green color of the medium in the presence of oxygen.

**METHOD PRINCIPLE**

It contains highly nutritious proteose peptone and Beef infusion that provides carbon, nitrogen substances, long chain amino acids, vitamins and minerals which support luxuriant growth of even fastidious bacteria. Sodium thioglycollate helps to create anaerobic condition as well as neutralizes toxicity of mercurial compounds if present in the inoculum of the test material. Sodium chloride maintains the osmotic equilibrium while dipotassium phosphate buffers the medium. Very small amount of agar present maintains anaerobic conditions at the bottom of the broth. Methylene blue indicates oxygen content of the medium by exhibiting bluish-green colour to the medium in presence of oxygen. The uninoculated medium shows bluish green colour at the top indicating presence of oxygen in that part. Organisms that ferment dextrose and lower the pH to critical levels may not survive in this medium after growth has taken place.

**MEDIA COMPOSITION**

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| Item | Formula per liter of medium |
| beef infusion from 500gProeose prptone Sodium chloride Sodium thioglycollateDipotassium phosphate Methylene blue Dextrose  | 17.500 gm. 10.00 gm. 5.000 gm. 0.500 gm. 2,000 gm. 0.002 gm. 5.000 gm. |

***Final pH 7.2 ± 0.2 at 25°C***

**PRECAUTIONS AND WARNINGS**

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

* Wearing personnel protective equipment (overall, gloves, glasses,).
* Do not pipette by mouth.
* In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
* Respect country requirement for waste disposal.

S56: dispose of this material and its container at hazardous or
special waste collection point.

S57: use appropriate container to avoid environmental contamination.

S61: avoid release in environment.

For further information, refer to the Brewer Thioglycollate Medium material safety data sheet.

**STORAGE AND STABILITY**

**Lab.Vie**. Brewer Thioglycollate Medium are stable until expiration date stated on label when properly stored between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

**MEDIA PREPARATION**

Suspend 40.5 g of Brewer Thioglycollate Medium in 1000 ml of distilled water. Boil to dissolve the medium completely. Dispense in tubes or in suitable containers as desired and sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes.

**Deterioration**

The color of **Lab.Vie**. Brewer thioglycollate medium light yellow coloured homogeneous free flowing powder., free flowing powder. If there are any physical changes, discard the medium.

The prepared medium is AYellow coloured clear to slightly opalescent fluid with upper 10% or less medium bluish green on standing., media should not be used if there are any signs of deterioration (shrinking, cracking, or discoloration), and contaminations.

**SPECIMEN COLLECTION AND PRESERVATION**

Industrial samples for sterility testing

**EQUIPMENT REQUIRED NOT PROVIDED**

* Sterile loops
* Sterile tubes
* Incubator

**PERFORMANCE CHARACTERISTICS**

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature

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| Organism | Growth |
| Bacteroides melaninogenicus ATCC 25848 | Good -luxuriant |
| Clostridium sporogenes ATCC 11437 | Good -luxuriant |
| Streptococcus mitis ATCC 9895 | Good -luxuriant |
| Streptococcus pyogenes ATCC 19615 | Good -luxuriant |
| Staphylococcus aureus subsp.aureus ATCC 25923 | Good -luxuriant |
| Bacteroides fragilis ATCC 25285 | Good -luxuriant |

**QUALITY CONTROL**

# To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact **Lab.Vie**.technical support.

**REFERENCES**

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

2. Brewer J. H., 1940, J.A.M.A., 115:598.

3. Isenberg, H.D. Clinical Microbiology Procedures Handbook. 2nd Edition.

4. Jorgensen,J.H., Pfaller , M.A., Carroll, K.C., Funke, Andry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

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| **SYMBOLS IN PRODUCT LABELLING** |
| Number of <n> test in the pack |  | For in-vitro diagnostic use |  **IVD** |
| Caution |  | Batch Code/Lot number |  **LOT** |
| Do not use if package is damaged |  | Catalogue Number |  **REF** |
| Consult Instruction for use |  | Temperature Limitation |   |
|  |  |  Expiration Date |   |
|  |  | Manufactured by |  |