

Fluid Thioglycollate Medium G

For the cultivation and isolation of obligate and facultative anaerobic and microaerophilic microorganisms and for sterility tests.

The medium comply with the recommendations of USP, EP and APHA. Formulation is identical to Fluid Thioglycollate Medium with the exception that synthetic agar-agar is used.

Mode of Action

This culture medium is more transparent than the classical Thioglycollate Medium and is therefore especially suitable for performing sterility tests when large volumes and long incubation periods are required. The reducing components thioglycollate and cystine ensure adequate anaerobiosis even in the case of fastidious anaerobes. Possible entry of atmospheric oxygen is indicated by the redox indicator resazurin, which then changes its colour to red. Addition of calcium or magnesium ions to the culture medium increases its solidity.

Typical Composition (g/litre)

Peptone from casein 15.0; yeast extract 5.0; D(+)glucose 5.5; L-cystine 0.5; sodium chloride 2.5; sodium thioglycollate 0.5; sodium resazurin 0.001; gelling agent (synthetic agar-agar) 0.75.

Preparation

Suspend 29 g/litre, dispense into tubes or flasks and autoclave (15 min at 121 °C)

pH: 7.1 ± 0.2 at 25 °C.

The prepared medium is clear and yellow.

- **The culture medium should, if possible, be freshly prepared. After autoclaving, it should not be placed immediately in the refrigerator, but should be allowed to cool at room temperature to minimize entry of atmospheric oxygen. The prepared medium can be stored for up to 3 months in an air-tight vessel. It is not for use, if more than one third has turned pink due to the entry of oxygen and if this colouration does not disappear on heating once.**

Quality control

Test strains	Growth
Staphylococcus aureus ATCC 6538	good
Bacillus subtilis ATCC 6633	good
Clostridium sporogenes ATCC 19404	good (anaerobic)
Bacteroides vulgatus ATCC 8482	good (anaerobic)
Clostridium sporogenes ATCC 11437	good (anaerobic)
Escherichia coli ATCC 25922	good
Micrococcus luteus ATCC 9341	good
Pseudomonas aeruginosa ATCC 9027	good

Experimental Procedure and Evaluation

Inoculate the culture medium with the sample to the bottom of the vessel. In order to ensure anaerobiosis, the medium can then be covered with an approximately 1 cm layer of sterile liquid paraffin.

Incubation: several days at 30 – 35 °C aerobically or as otherwise specified. Anaerobes grow in the lower part of the culture tube.

The classical thioglycollate culture medium should be used to test materials that contain large amounts of calcium or magnesium ions.

Ordering Information

Product	Merck Cat. No.	Pack size
Fluid Thioglycollate Medium G	1.16761.0500	500 g
Fluid Thioglycollate Medium G	1.16761.5000	5 kg
Paraffin viscous	1.07162.1000	1 l