Thioglycollate Medium w/K Agar

M430

Thioglycollate Medium with K Agar is used for cultivation of anaerobic, microaerophilic and aerobic microorganisms and for sterility testing procedures.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	15.000
Yeast extract	5.000
Dextrose	5.500
Sodium chloride	2.500
L-Cystine	0.500
Sodium thioglycollate	0.500
Resazurin, sodium salt	0.001
K Agar	0.750
Final pH (at 25°C)	7.1±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 29.75 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Store in a cool dark place preferably below 25°C.

Note: If more than upper one third has acquired pink colour, the medium may be restored once by heating in a water bath or in a free flowing steam until the pink colour disappears.

Principle And Interpretation

Thioglycollate Medium with K Agar is used for cultivating anaerobic, microaerophilic and aerobic microorganisms and for sterility testing procedures (1, 2).

Casein enzymic hydrolysate and yeast extract supply nitrogenous compounds, vitamin B complex and other growth nutrients to the microorganisms. Dextrose is the carbohydrate source. L-cystine is the amino acid source. Sodium thioglycollate reduces Eh potential. Resazurin is the redox indicator. Small amount of K agar helps in creating anaerobic condition by hampering the convection currents of the air. Sodium chloride maintains osmotic equilibrium.

Quality Control

Appearance
Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium
Light yellow coloured clear to very slightly opalescent fluid with upper 10% or less medium pink on standing.

Reaction
Reaction of 2.97% w/v aqueous solution at 25°C. pH : 7.1±0.2

pH
6.90-7.30

Cultural Response
M430: Cultural characteristics observed after an incubation i)Bacteria at 35-37°C for 18 - 48 hours ii) Clostridium species anaerobically iii)Fungal species at 25-30°C for 2-5 days.

Organism	Inoculum (CFU)	Growth
Bacillus subtilis ATCC 6633	50-100	luxuriant
Bacteroides vulgatus ATCC 8482	50-100	fair

Candida albicans ATCC 10231	50-100	luxuriant
Clostridium sporogenes ATCC 11437	50-100	luxuriant
Micrococcus luteus ATCC 10240	50-100	luxuriant
Neisseria meningitidis ATCC 13090	50-100	luxuriant
Streptococcus pyogenes ATCC 19615	50-100	luxuriant

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. Vera H.D., 1944, J. Bacteriol., 47:59.
2. MacFaddin J., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.

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