



Blue Agar

M401

Blue Agar is a general purpose nutrient medium containing an acid base indicator. With appropriate additions it can be used in fermentation studies.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	10.000
Beef extract	5.000
Sodium chloride	5.000
Agar	15.000
Bromo thymol blue	0.080
Final pH (at 25°C)	7.6±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 35.08 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. If desired carbohydrates can be added to it before sterilization. Dispense as desired.

Principle And Interpretation

Blue agar is a general purpose nutrient medium containing an acid base indicator, with appropriate additions it can be used in fermentation studies. Peptic digest of animal tissue and beef extract provides essential nutrients for bacterial metabolism. Bromo thymol blue is pH indicator for indicating the acid production due to carbohydrate fermentation. It turns yellow at acidic pH and imparts yellow colour to the colony. Alkalinization produces a blue colouration. Winkle (1) recommended addition of 0.28g/l metachrome yellow to suppress the swarming of *Proteus species* .

Quality Control

Appearance

Light yellow to yellow with green tinge homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Bluish green coloured clear to slightly opalescent gel forms in tubes as butts.

Reaction

Reaction of 3.5% w/v aqueous solution at 25°C. pH : 7.6±0.2

pH

7.40-7.80

Cultural Response

M401: Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Colour of colony (w/ added dextrose)
Cultural Response			
<i>Escherichia coli</i> ATCC 25922	50-100	good-luxuriant	yellow
<i>Pseudomonas aeruginosa</i> ATCC 9027	50-100	good-luxuriant	yellow
<i>Salmonella Typhimurium</i> ATCC 14028	50-100	good-luxuriant	yellow

Staphylococcus aureus 50-100 good-luxuriant yellow
ATCC 25923

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. Winkle S, 1947, Sbl Bakt.1.Orig; 152:103

Revision : 2 / 2015

Disclaimer :

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