GYC Agar

Cat. 2026

Acetic bacteria medium

Practical information

Aplications	Categories
Detection	Mesophilic aerobic

Industry: Food

Principles and uses

GYC Agar described by Swings (1992) detects the presence of acid-producing microorganisms and is regarded as “standard growth medium” for acetic acid bacteria.

Dextrose is the fermentable carbohydrate providing carbon and energy. Yeast extract is source of vitamins, particularly the B-group. Grown on this medium, Acetobacter will produce clear zones or halos around colonies because the acid being produced will neutralize the $CaCO_3$. Unlike the lactic acid bacteria, acetic acid bacteria are obligate aerobes and so it is necessary to use spread plates. Bacteriological agar is the solidifying agent.

Formula in g/L

Bacteriological agar	20	Calcium carbonate	5
Dextrose	50	Yeast extract	10

Preparation

Suspend 85 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. If desired, cool to 45-50 ºC and aseptically add 70 ml of ethanol. AVOID OVERHEATING. DO NOT AUTOCLAVE. Mix well and dispense into plates.

Instructions for use

Inoculate and incubate at 28-30 ºC for 3-5 days.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Beige	Light amber, slightly opalescent	6,8±0,2

Microbiological test

Incubate conditions: (28-30 ºC / 3-5 days).

Microrganisms	Specification
Acetobacter aceti ATCC 15973	Good growth

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

Madigan M.Martinko J (editors) (2005). Brock Biology of Microorganisms (11th ed. Edición).