

Neutralizing Agar

Cat. 1449

For the detection and enumeration of microorganisms on surfaces of sanitary interest

Practical information

Applications	Categories
Non selective enumeration	General use
Detection	General use

Industry: Environmental monitoring / Clinical

Principles and uses

Neutralizing Agar is used to cultivate a broad range of microorganisms while neutralizing disinfectants and antimicrobials which have inherent bacteriostatic properties.

Peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group. Dextrose is the fermentable carbohydrate providing carbon and energy. Five neutralizers inactivate a number of disinfectant and antiseptic chemicals. Sodium bisulfite neutralizes aldehydes. Sodium thioglycollate neutralizes mercurials. Sodium thiosulfate neutralizes iodine and chlorine. Lecithin neutralizes quaternary ammonium compounds. Polysorbate 80, a non-ionic surface active agent, neutralizes substituted phenolics. Bromocresol purple is used as an indicator for dextrose utilization. The organisms that ferment dextrose will turn the medium from a purple to yellow color.

Formula in g/L

Dextrose	10	Bacteriological agar	15
Bromocresol purple	0,02	Casein peptone	5
Lecithin	7	Polysorbate 80	5
Sodium bisulfite	2,5	Sodium thioglycollate	1
Sodium thiosulfate	6	Yeast extract	2,5

Preparation

Suspend 54 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. Sterilize in autoclave at 121 °C for 15 minutes. Cool to 45-50 °C, mix well and dispense into plates.

Instructions for use

Inoculate and incubate at 35±2 °C and observed after 18-24 hours.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Green-blue	Violet	7,6 ± 0,2

Microbiological test

Incubation conditions: (35±2 °C / 18-24 h).

Microorganisms	Specification
Salmonella typhimurium ATCC 14028	Good growth
Escherichia coli ATCC 25922	Good growth
Staphylococcus aureus ATCC 25923	Good growth

Pseudomonas aeruginosa ATCC 27853
Bacillus subtilis ATCC 6633

Good growth
Good growth

Storage

Temp. Min.:2 °C
Temp. Max.:8 °C

Bibliography

Downes and Iro(ed), 2001. Compendium of method for the microbiological examination of foods, 4th ed. American Public Health Association, Washitong, D.C.
Association for the Advancement of Medical Instrumentation. 1984. Process control guidelines for gamma radiation sterilization of medical devices. AAMI, Arlington,VA