D/E NEUTRALIZING AGAR

Dehydrated medium for the detection and enumeration of microorganisms present on surfaces of sanitary importance

TYPICAL FORMULA (g/L)

Pancreatic Digest of Casein	5.0
Yeast Extract	2.5
Dextrose	10.0
Sodium Thioglycollate	1.0
Sodium Thiosulfate	6.0
Sodium Bisulfite	2.5
Bromcresol Purple	0.02
Agar	15.0
Final pH 7.6 ± 0.2	

DESCRIPTION

D/E NEUTRALIZING AGAR has the ability to neutralize antimicrobial chemicals and is used for environmental sampling for the detection and enumeration of microorganisms present on surfaces of sanitary importance. Preparate plates are provided for environmental monitoring.

PRINCIPLE

Peptone, yeast extract and dextrose are sources of nutrients required for the replication of microorganisms. The peptone provides nitrogenous compounds, including essential amino acids. Yeast extract is a rich source of B-complex vitamins. Dextrose is an energy suorce. Five neutralizers in this medium will inactivate a variety of disinfectant and antiseptic chemicals: sodium bisulfite neutralizes aldehydes; sodium thioglycollate neutralizes mercurials; sodium thiosulfate neutralizes iodine and chlorine; lecithin neutralizes quaternary ammonium compounds; and polysorbate 80, a non-ionic surface active agent, neutralizes substituted phenolics. Bromcresol purple is incorporated as an indicator for dextrose utilization.

PREPARATION

Suspend 42 g of the powder in 950 ml of distilled water. Mix thoroughly. Heat with frequent agitation and boil for 1 minute to completely dissolve the powder. Add 5 ml of Tween 80 Supplement (code 80031) and 50 ml of Lecithin Supplement (code 80006). Autoclave at 121 °C for 15 minute.
Cool to approximately 45°C and in RODAC plates, dispense 16.5 to 17.5 ml of medium per plate.

TECHNIQUE

For use in the sampling of surfaces, remove de top of plate and apply the agar surface to a plat surface, pressing down gently but firmly. Lift the plate straight up from the surface and replace the top of the plate. Rounded surfaces can be sampled by rolling the agar surface in a continuous motion, again being careful not to slide the plate over the surface being sampled. Incubate plates with tha agar side up for 40-48 hours at 35 ± 2 °C in aerobic atmosphere.

INTERPRETATION OF RESULTS

After incubation, count the colonies and subculture those which are of interest so that identification can be made by means of biochemical testing.
It is generally agreed that 200 colonies is the approximate maximum that can be counted on these plates.

STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, in a dry environment, in its original container tightly closed until the expiry date indicated on the label or until signs of deterioration or contamination are evident. Store prepared media at 2-8 °C.

WARNING and PRECAUTIONS

The product is not classified as hazardous by current legislation and does not contain harmful substances in concentrations of ≥1%.
The product must be used only by properly trained operators.

DISPOSAL of WASTE

Disposal of waste must be carried out according to national and local regulations in force.

REFERENCES

1. Cannon, Beckerlheimer, and Maxcy. (1985). In Richardson ed., Standard methods for the examination of dairy products, 15th ed. APHA, Washington, D.C.
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3. Engley and Dey. (1970). Chem. Spec. Manuf. Assoc. Proc., Mid-Year Meet., p.100.
4. Vesley and Michaelson. (1964). Health Lab. Sci. 1:107
5. Downes and Ito ed. (2001). Compendium of methods for the microbiological examination of foods, 4th ed. American Pubblic Health Association, Washington, D.C.
6. Brummer. (1976). Appl. Environ. Microbiol. 32:80

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PRODUCT SPECIFICATIONS

NAME
D/E NEUTRALIZING AGAR

PRESENTATION
Dehydrated culture medium

STORAGE
10-30°C

PACKAGING

Code	Content	Packaging
610086	500 gr	500 gr of powder in plastic bottle
620086	100 gr	100 gr of powder in plastic bottle

pH OF THE MEDIUM
7.6 ± 0.2

USE
D/E NEUTRALIZING AGAR has the ability to neutralize antimicrobial chemicals and is used for environmental sampling for the detection and enumeration of microorganisms present on surfaces of sanitary importance. Preparate plates are provided for environmental monitoring.

TECHNIQUE
Refer to technical sheet of the product.

APPEARANCE OF THE MEDIUM
Dehydrated medium
Appearance: homogeneous
Colour: Bluish-gray
Prepared medium
Appearance: opaque
Colour: lavender

SHELFLIFE
4 years

QUALITY CONTROL

1. Control of general characteristics, label and print
2. Sterility control
   7 days at 25 ± 1°C, in aerobiosis
   7 days at 36 ± 1°C, in aerobiosis
3. Microbiological control
   Inoculum for productivity: 10-100 UFC/ml
   Inoculum for specificity: ≤ 10^4 UFC/ml
   Incubation conditions: 40-48 hours at 35 ± 2°C in aerobic atmosphere.

Microorganisms		INOCULUM CFU	RECOVERY
Bacillus subtilis	ATCC 6633	10^2-10^3	Good
Escherichia coli	ATCC 25922	10^2-10^3	Good
Pseudomonas aeruginosa	ATCC 27853	10^2-10^3	Good
Salmonella Typhimurium	ATCC 14028	10^2-10^3	Good
Staphylococcus Agar	ATCC 25923	10^2-10^3	Good

TABLE OF SYMBOLS

LOT Batch code	Temperature limitation	Manufacturer	Contains sufficient for <n> tests
REF Catalogue number	Keep away from heat	Use by	Caution, consult accompanying documents

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