

LAURYL SULPHATE AGAR

Selective medium for the isolation and enumeration of coliforms from water

TYPICAL FORMULA	(g/l)
Casein Peptone	40.0
Yeast Extract	6.0
Lactose	30.0
Sodium Lauryl Sulphate	1.0
Phenol Red	0.2
Agar	15.0
Final pH 7.4 ± 0.2 at 25°C	

DESCRIPTION

LAURYL SULFATE AGAR is a selective medium used for the isolation and enumeration of *Escherichia coli* and other coliforms from water by the membrane filtration method.

PRINCIPLE

Casein peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is the source of vitamins, particularly of the B-group. Lactose is a fermentable carbohydrate energy source. Sodium lauryl sulphate acts as selective inhibitor of sporulating aerobic bacteria while has no effect over coliforms which grow quickly and abundant from minute inocula. Phenol red is a pH indicator which turns from red to yellow when there is acid production from lactose. Agar is the solidifying agent.

PREPARATION

Suspend 92.2 g of powder in 1 lier of distilled water. Mix well and heat until completely dissolved. Autoclave at 121°C for 15 minutes. Cool to 45-50°C. Mix thoroughly and dispense in petri dishes.

TECHNIQUE

Membrane filtration method: filter a suitable volume of sample through a sterile membrane, then place membrane filter, inoculum side up, on the agar surface in the Petri dish. Incubate inverted plates at $35 \pm 2^{\circ}$ C for 24-48 hours.

Coliform enumeration and *E. coli* enumeration must be done in separate volume of samples. The volume to be filtered must be careful selected to obtain 10-100 colonies on the membrane.

INTERPRETATION OF RESULTS

Observe and count the yellow colonies over yellow zones in the medium. Report the results as CFU/ml of filtered sample.

STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until sings of deterioration or contamination are evident. Store prepared plates at 2-8°C away from light.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. it is nevertheless recommended to consult the safety data sheet for its correct use. 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. APHA 1998 Standard Methods for the examination of water and wastewater, 20th edition.





NAME

LAURYL SULFATE AGAR

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGE

REF	Content	Packaging
610503	500 g	500 g of powder in plastic bottle

pH OF THE MEDIUM

7.4 ± 0.2

USE

LAURYL SULFATE AGAR is a selective medium used for the isolation and enumeration of *Escherichia coli* and other coliforms from water by the membrane filtration method

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Dehydrated medium Appearance: free-flowing, homogeneous Colour: beige to faint pink <u>Prepared medium</u> Appearance: clear Colour: red

SHELFLIFE

4 years

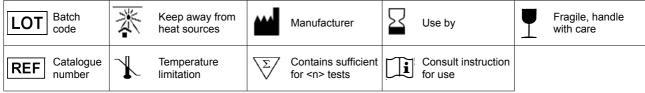
QUALITY CONTROL

1. Control of general characteristics, label and print

 Microbiological control Inoculum for productivity: 10-100 CFU/ml Inoculum for selectivity: 10⁴-10⁵ CFU/ml Inoculum for specificity: ≤10⁴ CFU/ml Incubation conditions:18-24 h at 36 ± 1°C

Microorganism	ATCC	Growth	Features
Escherichia coli	25922	Good	Orange-Yellow Media. Yellow Colonies
Salmonella typhimurium	14028	Good	Red Media. Colorless Colonies
Pseudomonas euruginosa	27853	Good	Red Media. Colorless Colonies
Staphylococcus aureus	25923	Inhibited	
Enterococcus faecalis	19433	Inhibited	

TABLE OF SYMBOLS





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