Condalab

Reference: 4720 **Technical Data Sheet**

Product: **ENDO LES AGAR**

Specification

Medium for detecting and enumerating coliforms in water and foods, by the filter membrane method.

Presentation

	Packaging Details	Shelf Life	Storage
30 Prepared plates 55 mm Plates for filtration purposes with: 9 ± 1 ml	1 box containing: 5 plastic bags with 6 plates of 55 mm/ bag.	2 months	2-14°C

Composition

Composition (g/l):

Peptone	15.00
Yeast Extract	1.20
Lactose	9.40
Potassium phosphate	1.00
Di-potassium phosphate	3.30
Sodium chloride	3.70
Sodium sulfite	1.60
Sodium desoxicolate	0.10
Sodium Lauryl sulfate	0.05
Agar	15.00
Basic fuchsin	0.80

Description /Technique

Description:

This agar is used to confirm the detection of and to count coliform bacteria following the testing of drinking water, as well as for the detection and isolation of coliforms and faecal coliforms from milk, dairy products and other food-stuffs.

The moderate selectivity is due to the formation of a fuchsine-sulfite compound. This compound reacts with the acetaldehyde formed in the lactose fermentation and frees the fuchsin dye that colours the bacterial colony. The strains that produce large amounts of the metabolite, like *E. coli*, can crystallize the fuchsin on the colony, giving rise to characteristic green metallic sheen.

Colonies of coliform, which ferment lactose, are pink to pale red, with or without green metallic sheen: marked reddening of the medium may occur. Colonies of other enteric bacilli, including *Salmonella* and of non-lactose-fermenters are about the same colour as the medium, being almost colourless to faint pink.

Caution: On exposure to oxygen, the plated medium gradually becomes red due to the oxidation of sulfite and can thus no longer be used. The culture medium oxidized (very intense red) should not be used because it decreases productivity of the culture medium.

Technique:

Collect, dilute and prepare samples and volumes to be filtered as required according to specifications, directives, official standard regulations and/or expected results.

Filter the sample through a 0.45 µm pore membrane and apply it onto the surface of the agar.

Incubate the plates aerobically at 36 +/- 1°C for 18-24h.

(Incubation times greater than those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications,...)

After incubation, enumerate all the colonies developd on the membrane.

Calculate total microbial count per ml of sample by multiplying the average number of colonies per membrane by the inverse dilution factor. Report results as Colony Forming Unit (CFU's) per ml along with incubation time and temperature.

Confirmation of E. coli (dark red colonies with a characteristic metallic sheen) is required

Quality control

Physical/Chemical control

Color : Pink pH: 7.2 ± 0.2 at 25°C

Microbiological control

Membrane Filtration /Practical range 100±20 CFU; Min. 50 CFU (Productivity)./10^4-10^6 CFU for Selectivity.
Aerobiosis. Incubation at 37 ± 1°C, reading after 24 ± 3 h

Microorganism	Growth
Escherichia coli ATCC® 25922, WDCM 00013	Good / Metalic shine
Escherichia coli ATCC® 8739, WDCM 00012	Good / Metalic shine
Salmonella enterica ATCC® 13076, WDCM 00030	Good - Colourless
Enterococcus faecalis ATCC® 19433, WDCM 00009	Poor to good

Sterility Control

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH
Check at 7 days after incubation in same conditions

Bibliography

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