PEC Chromogenic Agar

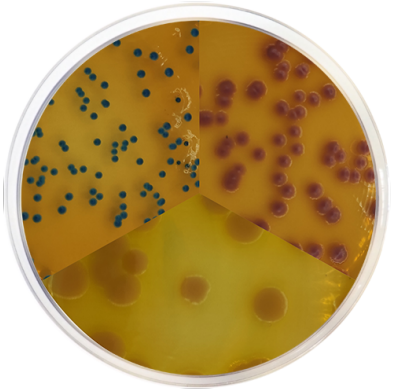
Cat. 2144

For the simultaneous detection of E. coli, Pseudomonas aeruginosa and Candida albicans in cosmetic products.

Practical information

Aplications	Categories
Detection	Pseudomonas aeruginosa
Detection	Escherichia coli
Detection	Candida

Industry: Cosmetics



Principles and uses

PEC Chromogenic Agar a is a selective medium specially formulated for the isolation and detection of E. coli, Pseudomonas aeruginosa and Candida albicans.

For cosmetics and other topical products, the detection of skin pathogens such as Staphylococcus aureus, Pseudomonas aeruginosa, and Candida albicans may be relevant because they can cause skin or eye infection. The detection of other kinds of microorganisms might be of interest since these microorganisms (including indicators of faecal contamination e.g. Escherichia coli) suggest hygienic failure during the manufacturing process.

The medium contains peptone, which provides nitrogen, vitamins, minerals, and amino acids essential for growth. The addition of tryptophan to the medium allows the performance of the Indole test for further E. coli confirmation. The mixture of chromogenic substrates allows the identification of the different species and the bacteriological agar is the solidifying agent.

Formula in g/L

Bacteriological agar	16	Chromogenic mixture	0,5
Peptone	16	Growth factors	13
L-Tryptophan	2		

Typical formula g/L * Adjusted and/or supplemented as required to meet performance criteria.

Preparation

Suspend 47,5 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. AVOID OVERHEATING. DO NOT AUTOCLAVE. Cool to 45-50 ºC, mix well and dispense into plates.

Instructions for use

- Prepare the sample.
- Subculture by streaking on a plate of Chromogenic PEC Chromogenic Agar, and incubate at 37 ºC±1ºC for 24-48 h.
- Confirm by identification tests.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Beige	Amber, slightly opalescent	7,2±0,2

Microbiological test

Incubation conditions: (37 ºC±1ºC / 24-48 h)

Microorganisms	Specification	Characteristic reaction
Candida albicans ATCC 10231	Good growth	Green colonies
Enterococcus faecalis ATCC 19433	Inhibition	
Escherichia coli ATCC 25922	Good growth	Pink colonies/ Fluorescence (+) under UV light
Staphylococcus aureus ATCC 25923	Inhibition	
Pseudomonas aeruginosa ATCC 27853	Good growth	Beige yellow colonies / Fluorescence (+) under UV light
Enterococcus faecalis ATCC 29212	Inhibition	
Staphylococcus aureus ATCC 6538	Inhibition	
Escherichia coli ATCC 8739	Good growth	Pink colonies/ Fluorescence (+) under UV light
Pseudomonas aeruginosa ATCC 9027	Good growth	Beige yellow colonies/Fluorescence (+) under UV light

Storage

Temp. Min.:2 ºC
Temp. Max.:8 ºC

Bibliography

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ROBIN, T. & J.M. JANDA (1984) Enhanced recovery of P. aeruginosa from diverse clinical specimens on a new selective agar.
Diag. Microbiol. Infect Dis. 2:207.
ISO 18415:2017(en) Cosmetics — Microbiology — Detection of specified and non-specified microorganisms