Desoxycholate Agar

Cat. 1020

For the isolation and differentiation of Gram-negative enteric bacilli

Practical information

Aplications	Categories
Selective isolation	Gram-negative enteric bacilli
Differentiation	Gram-negative enteric bacilli

Industry: Clinical / Food

CE
IVD

Principles and uses

Desoxycholate Agar is a selective and differential medium for the isolation and differentiation of Gram negative enteric bacilli. Leifson demonstrated improved recovery of intestinal pathogens from specimens containing normal intestinal flora.

The Desoxycholate and Citrate salts inhibit the development of the Gram positive organisms. The Peptone mixture provides nitrogen, vitamins, minerals and amino acids essential for growth. Lactose is the fermentable carbohydrate providing carbon and energy. Dipotassium phosphate acts as a buffer system. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Neutral red is a pH indicator. Bacteriological agar is the solidifying agent.

Formula in g/L

Bacteriological agar	16	Dipotassium phosphate	2
Ferric ammonium citrate	1	Lactose	10
Neutral red	0,033	Peptone mixture	10
Sodium chloride	5	Sodium citrate	1
Sodium deoxycholate	1		

Preparation

Suspend 46 grams of the medium in one liter of distilled water. Soak for 10-15 minutes. 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 and dispense into Petri dishes.

Instructions for use

» For clinical diagnosis, the type of samples are feces.
- Spread a plate with loop or swab.
- Incubate in aerobic conditions at 35±2 ºC for 18-24 hours.
- Reading and interpretation of results.

» For other uses not covered by the CE marking:
Isolation and differentiation of Gram-negative enteric bacilli in food samples:
- Inoculate and incubate at 35±2 ºC for 18-24 hours.
- The recovery of organisms is sometimes facilitated by adding a thin layer over the inoculated and solidified agar.
- Differentation of enteric bacilli is based on the fermentation of lactose. Lactose fermenters acidify the medium and, under Neutral red, form red or pink colonies. The colonies of the microorganisms which do not ferment lactose such as Salmonella, Shigella and Proteus are colorless.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Pinkish beige	Red-orange	7,3±0,2

Microbiological test

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

Microrganisms	Specification	Characteristic reaction
Salmonella typhimurium ATCC 14028	Good growth	Colorless
Escherichia coli ATCC 25922	Good growth	Pink colonies with bile precipitate
Staphylococcus aureus ATCC 25923	Inhibited growth	

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

Standard Methods for the Examination of Dairy Products. 1 ed. APHA, Inc. New York, 1960. Standard Methods for the Examination of Water and Wastewater, APHA, Inc. New York, 1 960.