

Klebsiella Chromogenic Agar Base

Cat. 2119

For the selective isolation of *Klebsiella* sp.

Practical information

Applications	Categories
Selective isolation	Klebsiella

Industry: Clinical



Principles and uses

Klebsiella Chromogenic Agar Base is a selective medium for the isolation of *Klebsiella*. These Gram negative bacteria can cause different types of health-associated infections, including pneumonia, bloodstream infections, wounds or surgical infections and meningitis.

Klebsiella is usually found in human intestines (where it does not cause disease) and feces. Healthy people rarely suffer from *Klebsiella* infections, whereas in health centres they often occur in patients who are being treated. Patients requiring ventilation devices or intravenous catheters have a higher risk of contracting this type of infection.

Casein peptone is a source of nitrogen, vitamins and amino acids essential for growth. Sorbitol is the fermentable carbohydrate providing carbon and energy. The buffering capacity is provided by the disodium phosphate and monosodium phosphate. Sodium chloride maintains the osmotic equilibrium of the medium. Chromogenic mixture incorporated in the media is cleaved specifically by *Klebsiella* species to produce pink colonies. Tryptophan promotes the indole reaction when adding Kovac's reagent to detect the capability of the microorganism to cleave tryptophan. Agar is the solidifying agent.

Formula in g/L

Bacteriological agar	10	Casein peptone	3
Chromogenic mixture	0,22	Disodium phosphate	2,7
Sodium chloride	5	Sodium pyruvate	1
Sorbitol	1	Tryptophan	1
Monosodium Phosphate	2,2		

Preparation

Suspend 13,06 grams of the medium in 500 ml 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 °C and add the *Klebsiella* Selective Supplement (Cat. 6045) previously reconstituted with 5 ml of distilled water. Mix well and pour into Petri dishes.

Instructions for use

» For clinical diagnosis, the type of sample is any sample of clinical origin.

The collection, handling and processing of the samples are carried out according to the recommendations and standards in Clinical Microbiology.

- Inoculate on surface making parallel striae with the handle or swab.
- Incubate at 35±2 °C for 24-48 hours.
- Reading and interpretation of the results.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Light beige	Clear amber, slightly opalescent	6,8±0,2

Microbiological test

Incubation conditions: (35±2 °C / 24-48 h).

Microorganisms	Specification	Characteristic reaction
Enterobacter aerogenes ATCC 13048	Inhibited growth	
Klebsiella oxytoca ATCC 13182	Good growth	Pink colony
Klebsiella pneumoniae ATCC 13883	Good growth	Pink colony
Salmonella typhimurium ATCC 14028	Inhibited growth	
Klebsiella BAA 1705	Good growth	Pink colony
Escherichia coli ATCC 25922	Inhibited growth	
Staphylococcus aureus ATCC 25923	Inhibited growth	
Proteus mirabilis ATCC 25933	Inhibited growth	
Enterococcus faecalis ATCC 29212	Inhibited growth	
Citrobacter freundii ATCC 8090	Inhibited growth	
Pseudomonas aeruginosa ATCC 9027	Inhibited growth	

Storage

Temp. Min.: 2 °C
Temp. Max.: 25 °C

Bibliography

H.Y. Reynolds, Pneumonia due to Klebsiella (Friedlander's pneumonia), J.B. In Wyngaarden, L.H. Smith. (eds) : Cecil Text book of Medicine, 16th ed, pp 1430, 1432. Philadelphia, W.B. Saunders (1982).