

Moeller KCN Broth Base

Cat. 1112

For the differentiation of enteric bacilli.

Practical information

Applications	Categories
Differentiation	Gram-negative enteric bacilli

Industry: Clinical

Principles and uses

Moeller KCN Broth Base, supplemented with a solution of potassium cyanide, is used in the differentiation of enteric bacilli based on their ability to grow quickly in the presence of cyanide.

The medium facilitates the recognition and identification of enteric bacilli similar to *Citrobacter freundii*, especially those that are slow to fermentate but develop rapidly in the presence of cyanide. Also, this medium is very useful in differentiating *Salmonella* (including the Arizona group).

Peptone mixture provides nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Sodium phosphate and potassium phosphate provide minerals and ions and act as a buffer system.

Formula in g/L

Disodium phosphate	5,64	Monopotassium phosphate	0,225
Peptone mixture	3	Sodium chloride	5

Preparation

Suspend 14 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. Dispense into tubes and sterilize in autoclave at 121 °C for 15 minutes. Cool to 45-50 °C and aseptically add 15 ml of a 0,5 % potassium cyanide solution (0,5 g per 100 ml of sterile distilled water) to each tube containing 10 ml of medium and close tightly.

Instructions for use

Inoculate the medium lightly so that the inoculum cannot be misinterpreted as growth when cultures are examined. This may be accomplished by using a 3 mm loopful of an overnight (24 hours) broth cultura, or by transferring a light inoculum from an agar slant culture with a straight wire. Inoculate and incubate at 35±2 °C for 24-48 hours.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Amber, slightly opalescent	7,6±0,2

Microbiological test

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

Microrganisms	Specification
<i>Shigella flexneri</i> ATCC 12022	Null growth
<i>Salmonella enteritidis</i> ATCC 13076	Null growth
<i>Enterobacter</i> spp	Good growth
<i>Escherichia coli</i> ATCC 25922	Null growth

Proteus vulgaris ATCC 6380
Citrobacter freundii ATCC 8090

Good growth
Good growth

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

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Gershmand Cn. J. Microbiol, 1. 1960
Edwards and Ewing, Identification of Enterobacteriaceae. Burgess Publ. Co., Minneapolis, Minn., 1972.