Endo Base Broth

Cat. 1276

For the identification of Enterobacteriaceae.

Practical information

Aplications	Categories
Detection	Enterobacteria

Industry: Water

Principles and uses

Endo Base Broth is used for the identification of Enterobacteriaceae

Peptone, tryptose and tryptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Lactose is the fermentable carbohydrate providing carbon and energy. Phosphates act as a buffer system. Yeast extract is a source of vitamins, particularly of the B-group. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Sodium desoxycholate inhibit growth of gram positive bacteria. Sodium lauryl sulphate partially inhibits organisms other than coliforms. 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.

This medium is normally used to impregnate absorbent materials (e.g. cardboard discs) on which the inoculated filters are placed. After filtration, the filters are placed on the soaked pieces of cardboard.

Formula in g/L

Dipotassium phosphate	4,375	Lactose	12,5
Monopotassium phosphate	1,375	Peptone	5
Sodium chloride	5	Sodium deoxycholate	0,1
Sodium lauryl sulfate	0,05	Sodium sulfite	2,1
Tryptone	5	Tryptose	10
Yeast extract	1,5		

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

Preparation

Suspend 47 grams of the medium in one liter of distilled water. Add 20 ml of ethanol with 1,05 grams of basic fuchsin. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. DO NOT AUTOCLAVE.

Instructions for use

Inoculate and incubate at a temperature of 35±2 ºC for 24±2 hours.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
May have a precipitation	Fine powder	Beige	Pinkish-red, opalescent	7,2±0,2

Microbiological test

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

Microorganisms	Specification

Salmonella typhimurium ATCC 14028	Good growth
Escherichia coli ATCC 25922	Good growth
Staphylococcus aureus ATCC 25923	Total inhibition

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

Endo S. 1904 uber ein verfahren Zum Nachweiss der Typhusbacillen.
A.P.H.A. 1975 Standard methods for the examination of water and wastewater. 14th edition. Standard Methods for the Examination of Water and Wastewater" (1992).