

Tryptose Dextrose Agar

Cat. 1047

For the cultivation of a wide variety of fastidious microorganisms, particularly Brucella.

Practical information

Applications	Categories
Growth	Fastidious microorganisms
Growth	Brucella

Industry: Clinical

Principles and uses

Tryptose Dextrose Agar with thiamine is a general purpose non selective medium recommended for the cultivation of Brucella spp.

Sanders and Huddleson demonstrated that the addition of dextrose and thiamine chlorohydrate to the medium stimulates the growth of some species of Brucella. The Tryptose Dextrose Agar with thiamine is also recommended for the cultivation of pathogen microorganisms without enrichment, for streptococci, pneumococci, meningococci and other fastidious bacteria.

Tryptose provides nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Dextrose is the fermentable carbohydrate providing carbon and energy. Thiamine is a growth factor. Bacteriological agar is the solidifying agent.

The high productivity of the Tryptose Dextrose Agar used for the cultivation and isolation of Brucella confirms its value for the primary cultivation of Brucella, as other fastidious organisms.

Formula in g/L

Dextrose	1	Bacteriological agar	15
Sodium chloride	5	Thiamine hydrochloride	0,005
Tryptose	20		

Preparation

Suspend 41 grams of medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121 °C for 15 minutes. Cool to 45-50 °C, mix well and dispense into plates.

Instructions for use

Inoculate and incubate at 35±2 °C under 5-10% of CO₂ for 40-48 hours.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Ambar, ligeramente opalescente	7,2±0,2

Microbiological test

Incubation conditions: (35±2 °C / 40-48 h).

The microbiological test of the Brucella species should be carried out by the end-user laboratory.

Microorganisms	Specification
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Streptococcus pyogenes ATCC 19615
Streptococcus pneumoniae ATCC 6305

Good growth
Good growth

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

Jones, L.M., Wundt, W.; International Committee on Nomenclature of Bacteria, Subcommittee on the Taxonomy of Brucella. – Int. J. Syst. Bact., 21; 126-128 (1971).
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