

Cat. 1322

# **Tryptose Broth**

For the cultivation of a wide range of fastidious microorganisms, particularly Brucella from clinical samples

#### Practical information

Aplications Enrichment Categories Brucella

Industry: Clinical

## Principles and uses

Tryptose Broth is used for the cultivation of Brucella and other fastidious microorganisms from clinical samples.

The media with Tryptose, and in this case with thiamine, are recommended for the isolation, cultivation and differentiation of Brucella. Sanders and Huddleson demonstrated that the addition of Dextrose and Thiamine Chlorhydrate to the media stimulates the growth of some species of Brucella.

Tryptose is a source of nitrogen, vitamins and amino acids. Dextrose is the fermentable carbohydrate providing carbon and energy. Sodium chloride supplies essential electrolytes for transport and osmotic balance, and Thiamine Chlorhydrate is a growth factor.

Tryptose Broth with Thiamine is also recommended for the cultivation of pathogen microorganisms for Streptococcus, Pneumococcus, Meningococcus and other fastidious bacteria.

## Formula in g/L

Dextrose	1	Sodium chloride	5
Thiamine chlorhydrate 0	0,005	Tryptose	20

## Preparation

Suspend 26 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 appropriate containers and sterilize in autoclave at 121°C for 15 minutes.

## Instructions for use

Inoculate and incubate at  $35 \pm 2^{\circ}$ C, under 5-10% CO2, during 40-48 hours.

#### Quality control

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

#### Microbiological test

Incubation conditions:  $(35 \pm 2 \circ C / 5-10\% CO2 / 40-48 h)$ 

Microrganisms	Specification	
Streptococcus pyogenes ATCC 19615	Good growth	
Brucella melitensis ATCC 4309	Good growth	
Brucella abortus ATCC 4315	Good growth	
Streptococcus pneumoniae ATCC 6305	Good growth	

## Storage

Temp. Min.:2 °C Temp. Max.:25 °C

#### Bibliography

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

Picket, M.J., Nelson, E.L., a. Liberman, J.D.; Specification within ghe Genus Brucella. II. Evaluation of Differential Dye, Biochemical, and Serological Tests. – J. Bact, 66; 210-219 (1953)

Schindler, R.: Untersuchungen A1/4ber die Differenzierung von Brucellatypen. – Zbl. Bakt., I. Orig., 164; 93-95 (1955)

Silverman, S.J., a. Elberg, S.S.; The antigenic relationships of native antigens of species of Brucella. - J. Immunol., 65; 163-174 (1950)