

Liver Broth

Cat. 1242

For the cultivation of a wide variety of microorganisms, particularly *Brucella* and anaerobes

Practical information

Applications	Categories
Enrichment	<i>Brucella</i>

Industry: Clinical / Food

Principles and uses

Liver Broth is used to grow *Brucella* and other fastidious pathogens in foods and clinical samples. It is well suited to support the growth of anaerobic microorganisms, especially *Clostridium* spp.

The growth of most anaerobic bacteria is promoted by growth nutrients and stimulants such as nitrogen, vitamins, minerals and amino acids contained in the Liver base and the Meat peptone. Dextrose is the source of fermentable carbohydrate. Potassium phosphate is a buffer to maintain the pH. Liver Broth maintains an adequate degree of anaerobiosis for the growth of anaerobic microorganisms, especially *Clostridium* species

Brucellosis is a zoonotic disease with a domestic animal reservoir. Transmission is usually by milk, milk products, meat and direct contact with infected animals.

Formula in g/L

Dextrose	10	Disodium phosphate	2
Meat peptone	5	Liver base	50

Preparation

Suspend 67 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 medium at $35 \pm 2^\circ\text{C}$, under 5 - 10% CO_2 , for 18 – 48 hours and up to 72 hours if necessary.
- Incubate *Clostridium* under anaerobic conditions.

Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Beige	Dark amber/brown	$7,0 \pm 0,2$

Microbiological test

Incubation conditions:

Streptococcus pyogenes ($35 \pm 2^\circ\text{C}$ / 5-10% CO_2 / 18-48 h)

Clostridium sporogenes ($35 \pm 2^\circ\text{C}$ / anaerobic conditions / 18-48 h)

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

Microorganisms	Specification
<i>Clostridium sporogenes</i> ATCC 11437	Good growth
<i>Streptococcus pyogenes</i> ATCC 19615	Good growth

Storage

Temp. Min.:2 °C
Temp. Max.:25 °C

Bibliography

Scarr M. Pamela (1958) DSIR Proc. Symp Found Microbiol 1957 HMSO London pp 29-33.