

**IVD** in vitro diagnosticum - For professional use only



## Tryptose Broth

**Tryptose Broth**

**Cat. No. 1.10676.0500**  
**(500 g)**

For the enrichment and cultivation of streptococci, pneumococci, meningococci, Listeria, pasteurellae and other pathogenic microorganisms.

Tryptose culture media are recommended by HAUSLER and KOONTZ (1970) in diagnostic procedures.

### See also General Instruction of Use

Warnings and precautions see [www.merck-chemicals.com](http://www.merck-chemicals.com)

#### Principle

Microbiological method

#### Mode of Action

Addition of crystal violet inhibits the Gram-positive bacterial flora (HAUSLER and KOONTZ 1970). Isolation of *Listeria monocytogenes* from brain (GRAY et al. 1948), preparation of a *Listeria* Selective Agar by adding potassium tellurite (GRAY et al. 1950). Tryptose Agar also serves as a satisfactory base for preparing blood agar.

#### Typical Composition (g/litre)

Tryptose 20.0; D(+)-glucose 1.0; sodium chloride 5.0; thiaminium dichloride 0.005;

#### Preparation and Storage

**Cat. No. 1.10676. Tryptose Broth** (500 g)

Usable up to the expiry date when stored dry and tightly closed at +15 to +25°C. Protect from light.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 to +25°C.

Suspend 26 g Tryptose Broth/litre, autoclave (15 min at 121 °C).

pH: 7.3 ± 0.2 at 25 °C.

The prepared media are clear and yellowish-brown.

*Preparation of tryptose crystal violet agar:* before autoclaving, add 1.4 ml of an aqueous 1 % crystal violet solution/litre and 13 g/litre agar agar, mix homogeneously.

*Preparation of tryptose blood agar:* sterile Tryptose Broth plus 13,0 g/l Agar, cooled to 45-50 °C, add 5 % sterile defibrinated blood and mix taking care not to form any bubbles.

#### Specimen

e.g. Stool, blood.

Clinical specimen collection, handling and processing, see general instructions of use.

#### Experimental Procedure and Evaluation

A pre-enrichment with Tryptose Broth should be carried out if only small numbers of fastidious bacteria are expected. Incubation of anaerobic microorganisms should be carried out, in each case, for up to 5 days at 35 °C in a 10 % carbon dioxide atmosphere. This can be achieved using Anaerocult® C or Anaerocult® C mini.

For the cultivation of other microorganisms, Tryptose Agar and Tryptose Broth are used. The incubation should be carried out, in each case, under optimum conditions.

Tryptose citrate broth can be used to prepare blood cultures. 2 to 5 ml of fresh blood taken from the patient are

mixed with 20 ml of the broth.

<i>Appearance of Colonies</i>	<i>Microorganisms</i>
Pale pink, opaque, rough surface, large	streptococci

#### Quality control of Tryptose Broth

<i>Test strains</i>	<i>Growth</i>
<b>Streptococcus pyogenes ATCC 12344</b>	<b>good / very good</b>
<b>Streptococcus pneumoniae ATCC 6301</b>	<b>good / very good</b>
<b>Pasteurella multocida ATCC 43137</b>	<b>fair / good</b>
<b>Listeria monocytogenes ATCC 19118</b>	<b>good / very good</b>
<b>Shigella flexneri ATCC 12022</b>	<b>good / very good</b>
<b>Escherichia coli ATCC 25922</b>	<b>good / very good</b>
<b>Staphylococcus aureus ATCC 25923</b>	<b>good / very good</b>

#### Additives

Merck Cat.No.	Product	Pack Size
1.01614.1000	Agar-agar purified	1 kg
1.06448.0500	tri-Sodium citrate dihydrate	500 g
1.07040.0001	Plate basket	1ea
1.13682.0001	Anaerocult® C mini	1 x 25
1.14226.0001	Anaeroclip®	1 x 25
1.15929.0025	Thionine (acetate) Certistain®	25 g
1.15940.0025	Crystal violet Certistain®	25 g
1.16275.0001	Anaerocult® C	1 x 10
1.16387.0001	Anaerobic jar	1 ea
	Defibrinated blood	
	Fuchsin, basic	

#### Literature

GRAY, M.L., STAFSEHT, H.J., THORP, F., a. RILEY, W.F.: A new technique for isolation of Listerella from bovine brain. - **J. Bact.**, **55**: 471-476 (1948).  
 GRAY, M.L., STAFSEHT, H.J., a. THORP, F. jr.: The use of potassium tellurite, sodium azide and acetic acid in a selective medium for the isolation of Listeria monocytogenes. - **J. Bact.**, **59**: 443-444 (1950).  
 HAUSLER, W.J., a. KOONTZ, F.P.: Brucellosis in Diagnostic procedures for Bacterial, Mycotic and Parasitic Infections; 5<sup>th</sup> ed., APHA, New York (1970).

