

## Sulfite Tryptose Broth

For the detection of *Clostridium perfringens*.

### Practical information

Applications	Categories
Detection	<i>Clostridium perfringens</i>

Industry: Water / Food

### Principles and uses

Sulfite Tryptose Broth is a liquid nutrient medium for the detection of *Clostridium perfringens*.

Tryptose and soy peptone provide nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is source of vitamins, particularly the B-group. Cycloserine inhibits the accompanying bacterial flora and allows the growth of the colonies, which develop smaller. It also disturbs the blackening around the *C. perfringens* colonies. Colonies producing hydrogen sulfide are characterized by a blackening due to the reaction of sodium metabisulfite and the ferric ammonium citrate salt. The containers showing a blackening indicate the presence of *C. perfringens*.

### Formula in g/L

Ferric ammonium citrate	1	Sodium metabisulfite	1
Soy peptone	5	Tryptose	15
Yeast extract	5		

### Preparation

Suspend 27 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. Distribute in tubes in amounts of 18 ml. Sterilize in autoclave at 121 °C for 15 minutes. Cool to 45-50 °C and aseptically add 0,4 grams of D-cycloserine and homogenize gently.

### Instructions for use

Inoculate and incubate at 37±1 °C for 20±4 hours and for 44±4 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	Amber	7,6±0,1

### Microbiological test

Incubation conditions: (37±1 °C / 20±4 h; 44±4 h).

Microrganisms	Specification	Characteristic reaction
<i>Clostridium perfringens</i> ATCC 12919	Good growth	Blackening

### Storage

Temp. Min.: 2 °C  
Temp. Max.: 25 °C

## Bibliography

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Sahidi S.A. and Ferguson A.R. (1971) Appl. Microbiol.,21 500-506. Harmon S.M., Kauttar D.A. and Peeler J.T.(1971) Appl. Microbiol. 21, 922-927. Hauschild A.H.W and Hilsheimer R. (1973) Appl. Microbiol.27. 78-82.

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