

## Todd Hewitt Broth

Cat. 1236

For the cultivation of  $\beta$ -hemolytic streptococci for serologic typing from clinical samples

### Practical information

Applications	Categories
Enrichment	Streptococcus



### Principles and uses

Todd Hewitt Broth is recommended for the cultivation of streptococci and other fastidious microorganisms. It was originally developed for the production of streptococcal hemolysin. The broth was modified by Updyke and Nickle and is used preferentially to cultivate beta-hemolytic strains, especially for serological typing, from clinical specimens and for epidemiological studies.

The medium is also recommended as an enrichment medium for the growth of streptococcal cells in the identification of Groups A and B. This medium was used as an enrichment broth for Group A streptococci in a comparison study of a rapid antigen test.

Bacteriological Peptone and Beef Heart infusion provide nitrogen, vitamins, minerals and amino acids essential for growth. Disodium phosphate and Sodium carbonate act as a buffer to prevent the destruction of the hemolysin by the acid produced through fermentation of the carbohydrate Dextrose, source of carbon and energy. Sodium chloride maintains the osmotic balance of medium.

### Formula in g/L

Bacteriological peptone	20	Dextrose	2
Disodium phosphate	0,4	Sodium carbonate	2,5
Sodium chloride	2	Heart infusion	3,1

### Preparation

Suspend 30 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 tubes at  $35 \pm 2^\circ\text{C}$  for 18 - 48 hours.

To prepare Todd Hewitt Agar, add 13 - 15 g/l of Bacteriological Agar (Cat. 1800/1802) to the broth and sterilize as above.

### Quality control

Solubility	Appearance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25°C)
w/o rests	Fine powder	Clear beige	Amber	$7,8 \pm 0,2$

### Microbiological test

Incubation conditions: ( $35 \pm 2^\circ\text{C}$  / 18-48 h)

Microorganisms	Specification
Neisseria meningitidis ATCC 13090	Good growth

Streptococcus pyogenes ATCC 19615  
Streptococcus pneumoniae ATCC 6305  
Streptococcus mitis ATCC 9895

Good growth  
Good growth  
Good growth

## Storage

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Temp. Min.:2 °C  
Temp. Max.:25 °C

## Bibliography

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