

TM 451 – TODD HEWITT BROTH

INTENDED USE

For cultivation of group A haemolytic Streptococci used for serological studies.

PRODUCT SUMMARY AND EXPLANATION

Humans are the natural reservoir for group A,β-haemolytic streptococci. The organisms are transmitted from person to person by the respiratory route and it causes pharyngitis, tonsillitis, sinusitis, otitis media, cervical adenitis, pyoderma, lymphadenitis, bacteremia, osteomyelitis, arthritis and endocarditis. Pharyngitis is the most common infection caused by group A *Streptococci*.

In 1985, outbreaks of rheumatic fever have been reported in the Salt Lake City area, California. In these outbreaks, some persons did not recall having had a streptococcal infection. In such cases, and in the diagnosis of non-suppurative squal, serologic studies are helpful for respective documentation of previous group A streptococcal infection. Todd Hewitt Broth, which was initially developed to produce streptococcal haemolysin was further modified by Updyke and Nickle for cultivation of β-haemolytic *Streptococci* for different serological tests. This medium is also recommended for selective isolation of group B *Streptococci* with added gentamicin and nalidixic acid. This medium has been recommended as an alternative type in epidemiologic studies of group A *Streptococci* as well as pathogenic microorganisms. With the addition of 15 g/l agar, the medium can be solidified and used as an excellent substrate for the production of capsules in streptococci.

COMPOSITION

Ingredients	Gms / Ltr
Beef heart, infusion from	500.000
Peptone	20.000
Dextrose (Glucose)	2.000
Sodium chloride	2.000
Disodium hydrogen phosphate	0.400
Sodium carbonate	2.500

PRINCIPLE

Todd Hewitt Broth medium is very nutritious due to the presence of peptone and infusion from beef heart. Dextrose stimulates haemolysin production. The medium is well buffered by sodium phosphate and sodium carbonate to neutralize the acid produced during dextrose fermentation. This restricts destruction of antigenic streptococcal haemolysin. It is also found that sodium phosphate have a stimulating effect on the pneumococcal growth.

INSTRUCTION FOR USE

- Dissolve 37.0 grams in 1000 ml purified / distilled water.
- Mix well and dispense into tubes or flasks as desired.
- Heat if necessary to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium	: Medium amber coloured clear solution without any precipitate
pH (at 25°C)	: 7.8±0.2



INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period
<i>Neisseria meningitidis</i>	13090	50-100	Good-luxuriant	35-37°C	18-48 Hours
<i>Streptococcus mitis</i>	9811	50-100	Good-luxuriant	35-37°C	18-48 Hours
<i>Streptococcus pneumoniae</i>	6303	50-100	Good-luxuriant	35-37°C	18-48 Hours
<i>Streptococcus pyogenes</i>	19615	50-100	Good-luxuriant	35-37°C	18-48 Hours

PACKAGING:

In pack size of 100gm and 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.













Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Todd E. W. and Hewitt L. F., 1932, J. Pathol. Bacteriol., 35:973.
2. Updyke E. L. and Nickle M. I., 1954, Appl. Microbiol., 2:117.
3. Forbes B. A., Sahn D. F. and Weissfeld A. S., 1998, Bailey & Scotts Diagnostic Microbiology, 10th Ed., Mosby, Inc., St. Louis, Mo.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Barkstrasse 10 48163 Muenster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.



***For Lab Use Only**
Revision: 08 Nov., 2019

