

TODD HEWITT BROTH

Powdered and ready to use liquid medium for the cultivation of streptococci prior to serological grouping and for the production of antigenic streptococcal haemolysin.

TYPICAL FORMULA (g/l)

Beef Heart dehydrated	10.0
Tryptone	20.0
Glucose	2.0
Sodium Chloride	2.0
Sodium Bicarbonate	2.0
Disodium Hydrogen Phosphate	0.4

DIRECTIONS FOR POWDERED MEDIUM

Suspend 36.4g in 1000ml of cold distilled water, heat to dissolve, distribute into containers and sterilise by autoclaving at 115°C for 20 minutes.

Final pH 7.8 ± 0.2

DESCRIPTION

Todd Hewitt Broth is a modification of the original formula of Todd and Hewitt proposed by Updyke and Nickel. Todd Hewitt Broth is used for the cultivation of streptococci prior to serological grouping and for the production of antigenic streptococcal haemolysin. The medium is also used for the cultivation of pathogenic microorganisms, for blood cultures and for the cultivation of β-haemolytic streptococci for MIC testing.

In the presence of some peptones, many group A streptococci produce proteolytic enzymes which digest protein M. For the grouping of streptococci it is necessary that the cellular content of this protein is maintained, therefore, it is necessary to use a culture medium with peptones which prevent the formation of these proteases.

As well as supporting excellent growth of group A streptococci, Todd Hewitt Broth favours the production and maintenance of protein M and hinders the formation of proteases. Serological identification of streptococci is achieved by testing a cellular extract with antibodies of known specificity.

The cellular extract may be obtained from 30ml of Todd Hewitt Broth inoculated with pure cultures and incubated for 18-24 hours at 37°C.

TECHNIQUE

Inoculate the tube directly with the specimen swab. Express excess fluid from the swab while removing from the liquid medium. Incubate at 35-37°C in 5-10% CO₂ for 2- 5 hours prior to use in fluorescent antibody procedures; pre incubate for 24 hours if extraction procedures for serological typing are to be performed. Follow serological and extraction procedures, as directed by the manufacture of the kits.

USER QUALITY ASSURANCE (30-35°C 3 DAYS)

Productivity control

S.pyogens ATCC 19615: growth

S.pneumoniae ATCC 6303: growth

STORAGE

Dehydrated medium: 10-30°C

User prepared tubes or flasks: 1 month at 2-8°C

REFERENCES

- Focklam, R.R. (1974) - In: Manual of Clinical Microbiology, 2nd edition, ed. Lenette, EM., Spaulding, E.H. Truant, J.P., ch. 8, 96-108, Washington: American Society for Microbiology.
- Todd, E.W. & Hewitt, L.F. (1932) - J. Path. Bact., **35**, 973-974.

Packaging

4021342 Todd Hewitt Broth 500g (13.7 l)

552134 Todd Hewitt Broth 20 x 9 ml ready to use tubes