
TRYPTIC SOY BROTH w/ 6.5% NaCl

INTENDED USE

Remel Tryptic Soy Broth w/ 6.5% NaCl is a liquid medium recommended for use in qualitative procedures for the differentiation of enterococci from group D streptococci.

SUMMARY AND EXPLANATION

Tryptic Soy Broth (TSB) was originally developed for susceptibility testing of pneumococci to sulfonamides, without the addition of serum or blood.¹ In 1973 Facklam recommended using TSB w/ 6.5% NaCl in combination with the bile esculin test to differentiate nonenterococcal group D streptococci from *Enterococcus* spp.² Enterococci are salt tolerant and will grow in TSB w/ 6.5% NaCl; nonenterococcal group D streptococci will not grow in salt broth.³

PRINCIPLE

Casein and soy peptones provide amino acids and other nitrogenous substances necessary for the growth of microorganisms. Sodium chloride serves as a differential agent by inhibiting the growth of salt-intolerant organisms. Dextrose is an energy source. Dipotassium phosphate is a buffer which is added to maintain a stable pH. *Enterococcus* spp. will grow in the presence of 6.5% NaCl while other streptococci, including group D streptococci (not enterococci) and some group B streptococci, will not.

REAGENTS (CLASSICAL FORMULA)*

Sodium Chloride.....	65.0 g	Dextrose	2.5 g
Casein Peptone.....	17.0 g	Dipotassium Phosphate	2.5 g
Soy Peptone.....	3.0 g	Demineralized Water	1000.0 ml

pH 7.3 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PROCEDURE

1. The performance of TSB w/ 6.5% NaCl is dependent on the use of a properly prepared inoculum. Lightly inoculate the medium from the center of an 18-24 hour, well-isolated colony.
2. Incubate the tube in ambient air for 18-24 hours at 35-37°C.
3. Observe for growth (turbidity).

INTERPRETATION OF THE TEST

Positive Test - Growth (turbidity)

Negative Test - No growth

QUALITY CONTROL

All lot numbers of Tryptic Soy Broth w/ 6.5% NaCl have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, patient results should not be reported.

CONTROL

Enterococcus faecalis ATCC® 29212
Streptococcus bovis ATCC® 9809
Streptococcus pyogenes ATCC® 19615

INCUBATION

Ambient, 18-24 h @ 35-37°C
Ambient, 18-24 h @ 35-37°C
Ambient, 18-24 h @ 35-37°C

RESULTS

Growth
No growth
No growth

BIBLIOGRAPHY

1. McCullough, N.B. 1949. Am. J. Public Health. 39:866-869.
2. Facklam, R.R. 1973. Appl. Microbiol. 2:138-145.
3. Winn, W.C., S.D. Allen, W.M. Janda, E.W. Koneman, G.W. Procop, P.C. Schreckenberger, and G.L. Woods. 2006. Koneman's Color Atlas and Textbook of Diagnostic Microbiology. 6th ed. Lippincott Williams & Wilkins, Philadelphia, PA.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, specimen collection, storage and transportation, materials required, quality control, and limitations.

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