

TRYPTIC SOY BROTH w/ 0.5% BOVINE ALBUMIN

INTENDED USE

Remel Tryptic Soy Broth w/ 0.5% Bovine Albumin is a liquid medium recommended for use in the transport of clinical specimens intended for isolation of *Ureaplasma* and *Mycoplasma* species.

SUMMARY AND EXPLANATION

Tryptic Soy Broth is a general-purpose medium which is suitable for cultivating fastidious and nonfastidious microorganisms. Bovine albumin is added to Tryptic Soy Broth w/ 0.5% Bovine Albumin to enhance its capacity for growth promotion of fastidious organisms with demanding nutritional requirements.¹ Such organisms include *Mycoplasma* and *Ureaplasma* species which possess extremely little genetic material and lack a cell wall. Because their membranes are easily damaged by exposure to environmental factors, the use of a transport medium to preserve specimens during shipment to the laboratory is recommended.^{2,3}

PRINCIPLE

Casein and soy peptones provide nitrogen, amino acids, and peptides necessary for bacterial growth. Sodium chloride is a source of essential electrolytes and maintains osmotic equilibrium. Dextrose provides a ready source of energy. Dipotassium phosphate is a buffer added to maintain a stable pH. Bovine albumin serves as a growth stimulant.

REAGENTS (CLASSICAL FORMULA)*

Casein Peptone.....	17.0 g	Soy Peptone	3.0 g
Sodium Chloride.....	5.0 g	Dextrose	2.5 g
Bovine Albumin Fraction V.....	5.0 g	Dipotassium Phosphate	2.5 g
		Deminerlized Water	1000.0 ml

pH 7.3 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PROCEDURE

1. Clinical specimens for recovery of mycoplasmas and ureaplasmas should be transported to the laboratory without delay. If a delay is unavoidable, place the specimen in Tryptic Soy Broth w/ 0.5% Bovine Albumin and hold at 2-8°C for a maximum of 24 hours. Specimens in the transport medium may also be shipped frozen or held at -70°C. Consult appropriate references for further instructions.^{2,3}
2. Use of Tryptic Soy Broth w/ 0.5% Bovine Albumin:
 - a. Organ tissues should be homogenized mechanically or minced with a sterile scalpel and placed directly into transport medium.
 - b. Place blood specimens, collected without anticoagulant, in Tryptic Soy Broth w/ 0.5% Bovine Albumin in a 1:5 or 1:10 dilution.⁴ Place other liquid specimens in transport medium in a 1:10 dilution. Greater isolation sensitivity may be obtained by centrifuging body fluids (e.g., urine) and inoculating the sediment.
 - c. Swab specimens should be collected on calcium alginate- or polyester-tipped swabs with plastic or aluminum shafts. Cotton-tipped swabs or swabs with wooden shafts should not be used.⁵ If a swab specimen is received in the laboratory, place the swab into TSB w/ 0.5% Bovine Albumin immediately. Swirl the swab in the broth and press against the side of the tube to express excess fluid. Discard the swab. Vortex mixing will optimize recovery.
4. Serial dilution to 10⁻³ of any specimen will optimize recovery and is recommended to overcome potential inhibitory substances that may be present in the specimen.
5. Subculture an aliquot from inoculated TSB w/ 0.5% Bovine Albumin to appropriate agar plates and incubate in 5% CO₂ or anaerobically at 35-37°C. Hold for the appropriate time duration of the organism being isolated.
6. Examine agar plates microscopically for growth every 1-3 days and observe for typical colonial morphology.

QUALITY CONTROL

All lot numbers of Tryptic Soy Broth w/ 0.5% Bovine Albumin 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

Mycoplasma pneumoniae ATCC® 15531
Ureaplasma urealyticum ATCC® 27618

INCUBATION

Aerobic, 18-24 h @ Room Temperature
Aerobic, 18-24 h @ Room Temperature

RESULTS

Growth on subculture
Growth on subculture

BIBLIOGRAPHY

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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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