

TSB - Tryptone Soya Broth (Soyabean Casein Digest Medium) (M1540)

A qualitative test for detection of microorganisms in blood and Body fluids. Sterile, in glass bottles.

Composition

Ingredients	g/ L
Tryptone	17.000
Soya peptone	3.000
Sodium chloride	5.000
Dextrose (Glucose)	2.500
Dipotassium hydrogen phosphate	2.500

Description

Soyabean Casein Digest Medium is recommended by various pharmacopoeias as a sterility testing and as a microbial limit testing medium. This medium is a highly nutritious medium used for cultivation of a wide variety of organisms. Bacteremia is a serious and often life-threatening clinical condition. An important diagnostic tool for this condition is to analyze a blood specimen for the growth of bacteria on selected growth media. The combination of tryptone and soya peptone makes the medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Dextrose (Glucose) and dipotassium hydrogen phosphate serve as the carbohydrate source and the buffer, respectively in the medium. Sodium chloride maintains the osmotic balance of the medium.

Instruction

Label the ready to use blood culture bottle. Remove the top of the screw cap. Draw patient's blood with the sterile or disposable needle and syringe. Disinfect the top of the bottle by using an alcohol swab over the rubber stopper. Transfer the sample immediately into the culture bottle by puncturing the rubber stopper. Keep the bottle in an upright position. Mix the contents by gently inverting the bottle 2-3 times. Incubate at 35±2°C for 18-24 hours and further for seven days.

Type of specimen

Clinical sample: Blood, Body Fluids and other pathological samples

Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines. After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions

In Vitro diagnostic use only. For professional use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture.

Limitations

1. Individual organisms differ in their growth requirement and may show variable growth patterns.
2. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any organisms based on the user's requirement.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality control**Physical/Chemical control**

Color : Clear TSB pH: 7.10-7.50

Quantity of Medium

50 ml of medium in glass bottle

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 18-24 hours.

Microbiological activity

Organisms	Inoculum CFU/ml	Growth
Staphylococcus aureus ATCC 25923	50-100	Good growth
Streptococcus pneumonia ATCC 49619	50-100	Good growth
Escherichia coli ATCC 25922	50-100	Good growth
Pseudomonas aeruginosa ATCC 27853	50-100	Good growth
Candida albicans ATCC 10231	50-100	Good growth
Aspergillus brasiliensis ATCC 16404	50-100	Good growth

Storage and Shelf Life ,

Store between 2-25°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques.

Reference

1. Murray P. R., Baron J. H., Pfaller M. A., Jorgensen J. H. and Tenover F. C., (Ed.), 2003, Manual of Clinical Microbiology, 8th Ed., American Society for Microbiology, Washington, D.C.
2. Koch P. K., 1942, Zentralbl. Bakteriell. Parasitenkd. Abt. I Orig.149:122.
3. Chapman G. H., 1945, J. Bacteriol., 50:201-2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
5. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.