

22092 Tryptic Soy Broth (TSB, (Tryptone Soya Broth, CASO Broth, Soybean Casein digest Broth, Casein Soya Broth)

The medium will support a luxuriant growth of many fastidious organisms without the addition of serum. Used for confirmation of *Campylobacter jejuni* by means of the motility test.

Composition:

Ingredients	Grams/Litre
Casein peptone (pancreatic)	17.0
Soya peptone (papain digest.)	3.0
Sodium chloride	5.0
Dipotassium hydrogen phosphate	2.5
Glucose	2.5
Final pH 7.3 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

Directions :

Suspend 30 g of dehydrated media in 1 litre of purified filtered water. Sterilize at 121°C for 15 minutes. Cool to 45- 50°C. Mix gently and dispense into sterile Petri dishes or sterile culture tubes.

Principle and Interpretation:

Casein peptone and Soya peptone provide nitrogen, vitamins and minerals. The natural sugars from Soya peptone and Glucose promote organism growth. Sodium chloride is for the osmotic balance, while Dipotassium hydrogen phosphate is a buffering agent.

Tryptone Soya Broth is often for the tube dilution method of antibiotic susceptibility testing. The addition of a small amount of agar (approx. 0.05-0.2% 05040, add before sterilisation) renders the broth suitable for the cultivation of obligatory anaerobes, such as Clostridium species. The superior growth-promoting properties of Tryptic Soy Broth make it especially useful for the isolation of organisms from blood or other body fluids. Anticoagulants such as sodium polyanetholesulfonate (81305) or sodium citrate (71635) may be added to the broth prior to sterilisation. 5 to 10 ml of blood may be added to 50 ml of medium.

Cultural characteristics after 18-48 hours at 35°C (if necessary 76 hours).

Organisms (ATCC)	Growth	max. incubation time in days
<i>Escherichia coli</i> (8739)	+++	3
<i>Staphylococcus aureus</i> (6538-P)	+++	3
<i>Streptococcus pneumoniae</i> (6301)	+++	3
<i>Bacillus subtilis</i> (6633)	+++	3
<i>Pseudomonas aeruginosa</i> (9027)	+++	3
<i>Candida albicans</i> (2091 or 10231)	+++	5
<i>Aspergillus niger</i> (16404)	+++	5



References:

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3. N.B. Mc Culloug, Laboratory tests in the diagnosis of brucellosis. Amer. J. of puplic health 39: 866-869 (1949)
4. Jean. F. Mac Faddin, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria. Vol. 1. Baltimore, MD.: Williams & Wilkins. (1985)

