

## T8907 Tryptic Soy Broth

Tryptic Soy Broth is a general-purpose powdered broth medium for the cultivation of fastidious microorganisms. It is widely used in the commercially available medium for culturing gram-positive, gram-negative bacteria, fungus, routine blood cultures, and microbial biofilms.

### Composition:

Ingredients	Grams/Litre
Dextrose	2.5
Dipotassium phosphate	2.5
Pancreatic digest of casein	17.0
Papaic digest of soy meal	3.0
Sodium chloride	5.0
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. Heat with frequent agitation and boil for one minute. 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. Contains all USP designated strains.

Organisms (ATCC)	Growth
<i>Aspergillus brasiliensis</i> (16404) former <i>A.niger</i>	Good to excellent
<i>Bacillus subtilis</i> (6633) (at 32-35°C and 20-25°C)	Fair to excellent
<i>Candida albicans</i> (10231)	Poor to excellent
<i>Escherichia coli</i> (8739)	Very good to excellent
<i>Pseudomonas aeruginosa</i> (9027)	Very good to excellent
<i>Salmonella typhimurium</i> (14028)	Poor to excellent
<i>Staphylococcus aureus</i> (6538)	Poor to good



## References:

1. J.L. Smith, B.J. Dell, Capability of selective media to detect heat-injured *Shigella flexneri*, J. Food Protect. 53, 141 (1990)
2. R.G. Garison, Studies of the respiratory activity of *Histoplasma Capsulatum*, J. of infect.. Dis. 108: 120-124 (1961)
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)

**Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

