

Tryptic Soy Broth, TSB (i23189)

Tryptic (Trypticase) Soy Broth (Soybean Casein Digest Medium) is a general-purpose medium used in qualitative procedures for the cultivation of fastidious and non-fastidious microorganisms from a variety of clinical and nonclinical specimens.

Industry: Clinical / Antimicrobial susceptibility testing / Food / Final product Quality Control / Cosmetics / Veterinary / Pharmaceutical

Principles & Uses

Tryptic Soy Broth is a versatile medium recommended for sterility and microbial limit testing. Comprising peptones, it provides essential nutrients such as nitrogen, carbon, amino acids, and peptides, fostering the growth of diverse microorganisms. Dextrose acts as the carbohydrate source, while dibasic potassium phosphate buffers the medium, and sodium chloride maintains osmotic balance. This medium aligns with the harmonized methods in the European Pharmacopeia and the United States Pharmacopeia. It is also recommended by ISO standards. Antibiotics or other supplements can be easily added based on specific requirements.

Composition (gr/L)

Pancreatic digest of Casein 15 g, Papaic digest of Soybean Meal 5 g, Sodium Chloride 5 g, Dipotassium Hydrogen Phosphate 2.5 g, Dextrose 2.5 g.

Final pH at 25°C 7.3 ± 0.2

Preparation from dehydrated Powder

Suspend 30 g of the medium in one liter of purified water. Mix thoroughly. Autoclave at 121°C for 15 minutes.

Quality Control

Dehydrated Appearance: Light beige, free-flowing, homogeneous.

Prepared Appearance: Light amber, clear.

Reaction of 3.0% Solution at 25°C: pH 7.3 ± 0.2

Cultural Response

Cultural response was observed after 18 - 72 hours of incubation at 30 - 35°C.

Organism (ATCC*)	Recovery
<i>Escherichia coli</i> (8739)	Good
<i>Bacillus subtilis</i> (6633)	Good
<i>Streptococcus pneumoniae</i> (6305)	Good
<i>Candida albicans</i> (10231)	Good
<i>Pseudomonas aeruginosa</i> (9027)	Good

*ATCC is a registered trade mark of the American Type Culture Collection.



Escherichia coli (left). *Candida albicans* (middle). Prepared Culture Media (right).

Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.