

## Trypticase Soy Broth | Ready-to-use Media

a product by **Biomed MDX**

Effective Date: 22/12/2025

REF TB05T3001



### Intended Use:

Trypticase Soy Broth is for enrichment and enumeration of a wide range of bacteria in various samples, including water, sewage, faeces, and other materials.

### Principle of the Procedure:

The principle of Trypticase Soy Broth (TSB) is to provide a highly nutritious, non-selective environment that supports the growth of a vast range of aerobic, facultative anaerobic, and even fastidious microorganisms. By utilizing a dual-peptone system (casein and soy), TSB offers a more complex array of amino acids and peptides than standard nutrient broth, making it suitable for demanding organisms like *Streptococcus pneumoniae*. The medium also incorporates dextrose (glucose) as a primary energy source and dipotassium phosphate as a buffer to prevent the pH from dropping too rapidly during bacterial fermentation.

### Product Summary:

Trypticase Soy Broth (TSB), also known as Soybean-Casein Digest Medium, is a highly nutritious, versatile, and non-selective liquid medium used for the cultivation of a wide variety of microorganisms. Its formulation is primarily composed of a combination of pancreatic digest of casein and papaic digest of soybean meal, which provide a rich source of nitrogen, vitamins, and amino acids necessary for the growth of both aerobic and facultative anaerobic bacteria, as well as yeasts and molds. The addition of dextrose serves as a primary energy source, while sodium chloride maintains osmotic equilibrium and dipotassium phosphate acts as a buffer to stabilize the pH. Because it meets the stringent requirements of international pharmacopoeias, TSB is widely utilized in the pharmaceutical and food industries for sterility testing, environmental monitoring, and as a general-purpose medium for the enrichment and isolation of fastidious pathogens.

### Formulation\* (PER LITER):

<b>Pancreatic Digest of Casein</b>	17.0g
<b>Papaic Digest of Soybean</b>	3.0g
<b>Dextrose</b>	2.5g
<b>Sodium Chloride</b>	5.0g
<b>Dipotassium Phosphate</b>	2.5g

pH 7.3 +/- 0.2

\*Adjust and/or supplemental as required to meet performance criteria

## Procedure

### Materials Provided

5mL Trypticase Soy Broth.

### Materials Required But Not Provided

Ancillary culture media, reagents, and laboratory equipment as required.

### Test Procedure

1. Inoculate and streak the specimen as soon as possible after it is received in the laboratory with an aseptic technique.
2. Incubate at ambient air  $35 \pm 2$  °C for 18 - 48 hours (CO<sub>2</sub> for capnophilic organisms) and yeast  $35 \pm 2$  °C for 5 days.
3. Observe the result according to user requirements.
4. Dispose of all used reagents and contaminated materials as infectious waste. Laboratories must handle and dispose of all waste safely according to regulations.

### Results

Examine for colonies exhibiting typical microscopic and colonial morphology. Appropriate biochemical or immunological tests may be required for final identification

### Quality Control

Inoculate representative samples with the following strains. Incubate the inoculated tubes at ambient air  $35 \pm 2$  °C for 18 - 48 hours (CO<sub>2</sub> for capnophilic organisms) and yeast  $35 \pm 2$  °C for 5 days.

Strains	ATCC®	Growth Results
<i>Streptococcus pneumoniae</i>	6305	Turbid growth
<i>Staphylococcus aureus</i>	25923	Turbid growth
<i>Candida albicans</i>	10231	Turbid growth
Negative Control	-	No growth

### Transportation:

Temperature fluctuations may occur during transportation. However, these fluctuations do not affect the performance, quality, or safety of the media.

### Storage and Shelf Life:

Upon receipt, store tubes at 2 to 8°C in their original sleeve wrapping until just before use. Avoid freezing and overheating.

The tubes may be inoculated up to the expiration date (see package label) and incubated for the recommended incubation times.

### Warning and Precautions:

For in vitro diagnostic use. For Professional Use Only. Do Not Reuse.

Do not use tubes if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration.













### Limitations of the Procedure

This medium is for laboratory use only and is not intended for the diagnosis of disease or other conditions. Identifications are presumptive and colonies should be identified using appropriate methods

## Reference

1. Nursofiah, S., Hartoyo, Y., Amalia, N., Febrianti, T., Febriyana, D., Saraswati, R. D., ... & Multihartina, P. (2021, November). Long-term storage of bacterial isolates by using Trypticase Soy Broth with 15% glycerol in the deep freezer (-70 to-80 C). In *IOP Conference Series: Earth and Environmental Science* (Vol. 913, No. 1, p. 012070). IOP Publishing.

**Packaging Symbol**

Symbol	Definition
	Catalogue number
	In Vitro Diagnostic Medical Device
	Batch code
	Date of manufacture
	Temperature limit
	Use-by date
	Keep away from sunlight
	Do not re-use
	Fragile, handle with care
	Consult instructions for use or consult electronic instructions for use
	Do not use if packaging damaged and consult instructions for use
	Manufacturer

**Further Information:**

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