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Tryptic Soy Broth (TSB)

A highly nutritious general purpose culture medium used for the cultivation of bacteria and fungi,
As well as sterility testing

REF: BS.1/SB01.100.0100	100 Gram	REF: BS.1/SB01.250.0250	250 Gram
REF: BS.1/SB01.500.0500	500 Gram		

CLINICAL SIGNIFICANCE

Tryptic Soy Broth, is a general-purpose medium, which is commonly referred to as Casein Soya Bean or Soybean-Casein Digest broth, and abbreviated as TSB. This medium was originally developed for usage without addition of blood in determining the effectiveness of sulfonamides against pneumococci and other microorganisms. Clostridia and non-sporulating anaerobes grow abundantly in TSB when incubated under anaerobic conditions. TSB is recommended for testing bacterial contaminants in cosmetics and conforms to established standards in the food industry. TSB was chosen by the USDA Animal and Plant Health Inspection Service for the detection of viable bacteria in live vaccines.

METHOD PRINCIPLE

Enzymatic digest of Casein and soybean provide the medium with nitrogen sources. Sodium Chloride maintains the osmotic balance in the medium. Glucose is a source of carbon and energy that facilitates the growth of microorganisms. Dipotassium Hydrogen Phosphate is used as a buffering agent.

MEDIA COMPOSITION

Item	Formula per liter of medium
Enzymatic digest of soybean	3 gm
Enzymatic digest of casein	17 gm
Sodium Chloride	5 gm
Glucose	2.5 gm
Dipotassium Hydrogen phosphate	2.5 gm

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.
  S56: dispose of this material and its container at hazardous or special waste collection point.
  S57: use appropriate container to avoid environmental contamination.
  S61: avoid release in environment.

For further information, refer to the Tryptic Soy Broth material safety data sheet.

STORAGE AND STABILITY

BioScien Tryptic Soy Broth should be stored between 10-30°C in a firmly closed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

Final pH 7.3±0.2 at 25°C

PREPARATION

Suspend 30 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Mix well and pour into sterile test tubes. Sterilize by autoclaving at 15lbs pressure (121°C) for 15 minutes. Cool to 45-50°C

Deterioration

The color of ***BioScien*** Tryptic Soy Broth is cream to yellow homogeneous free flowing powder. Prepared Media is light yellow in color. If there are any physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

SPECIMEN

Cleaning products, clinical testing, cosmetics, environmental sample, food and beverages, personal care, veterinary and microbiology sample.

EQUIPMENT REQUIRED NOT PROVIDED

- Sterile Test tubes
- Incubator
- Autoclave

PERFORMANCE CHARACTERISTICS

Microorganisms	Incubation Period	Growth
Aspergillus niger (ATCC 16404)	20-25° C for ≤ 5 days	luxuriant
Bacillus subtilis (ATCC 6633)	20-25° C for ≤ 3 days and 30-35° C for ≤ 3 days	luxuriant
Escherichia coli (ATCC 25922)	30-35° C for 18-24 hours	luxuriant
Salmonella Typhimurium (ATCC 14028)	30-35° C for 18-24 hours	luxuriant
Staphylococcus aureus (ATCC 6538)	30-35° C for ≤ 3 days	luxuriant
Candida albicans (ATCC 10231)	20-25° C for ≤ 5 days	luxuriant

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact ***BioScien*** technical support.

REFERENCES

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5. Downes, F.P. and K. Ito. 2001. Compendium of Methods for the Microbiological Examination of Foods. 4th ed. APHA, Washington, D.C.
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SYMBOLS IN PRODUCT LABELLING

IVD	For in-vitro diagnostic use	Σ	Number of <n> test in the pack
LOT	Batch Code/Lot number	⚠	Caution
REF	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		

EC REP

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