Technical Data Sheet

Tryptic Soy Broth – 2mL Liquid Media Ampoules
Cat. No. MHA000T2B

This medium is recommended to detect total heterotrophic microorganisms in water and other liquid samples.

Mode of Action
Tryptic Soy Broth (TSB) is a non-selective medium used for the isolation and cultivation of a variety of microorganisms including aerobic and anaerobic bacteria in water and other liquid samples by membrane filtration technique. The media is a general purpose liquid enrichment medium used in qualitative procedures for the sterility test. Enzymatic digest of casein and soybean provide amino acids and other complex nitrogenous substances. Glucose / dextrose is an energy source. Sodium chloride maintains the osmotic equilibrium. Dibasic potassium phosphate acts as a buffer to control pH.

Typical Composition (per liter of purified water)

Pancreatic Digest of Casein	17.0 g	Enzymatic Digest of Soybean Meal	3.0 g
Dextrose	2.5 g	Sodium Chloride	5.0 g
Dipotassium Phosphate	2.5 g		

Application
1. Collect the water sample in a sterile container. Sodium thiosulfate is necessary when the water sample contains a residual disinfectant. The sample should be a 100 ml minimum.
2. Invert one Tryptic Soy Broth ampoule 2 to 3 times. Open the ampoule. Remove the lid of a petri dish and carefully pour the contents equally onto the absorbent pad.
3. Set up the membrane filtration apparatus. Use sterile forceps to put the membrane filter in the assembly. The grid side is up.
4. Invert the sample / diluted sample for approximately 30 seconds to thoroughly mix the sample.
5. Pour the sample / diluted sample into the funnel. If the volume is less than 20ml, add 10 ml of sterile buffered dilution water to the funnel.
6. Apply the vacuum until the funnel is empty. Then stop the vacuum.
7. Rinse the funnel with 20ml to 30ml of sterile buffered dilution water. Apply the vacuum. Rinse the funnel two more times.
8. Stop the vacuum when the funnel is empty. Remove the funnel from the assembly. Use sterile forceps to lift the membrane filter.
9. Put the membrane filter on the absorbent pad. Let the membrane filter bend and fall equally across the absorbent pad to make sure that the air bubbles are not trapped below the filter.
10. Secure the lid on the petri dish and invert the dish.
11. Incubate the inverted petri dish for 18-72 hours at 30-35° C. (Typically 48 hours at 35° C.)
12. Remove the petri dish from the incubator. Use a microscope to count the number of bacteria colonies on the membrane filter.
13. Interpret and report the results.

Results Reporting
Report the colony density as the number of colonies in 100ml of sample. If there's more than 200 colonies, dilute the sample and use the diluted sample in the test procedure.

Colonies in 100ml = Colonies counted / ml of sample x 100**.**

Storage and Shelf Life
The product can be used until the expiry date if the unopened ampoules are stored sealed in the aluminum foil bag at 2 – 10°C.

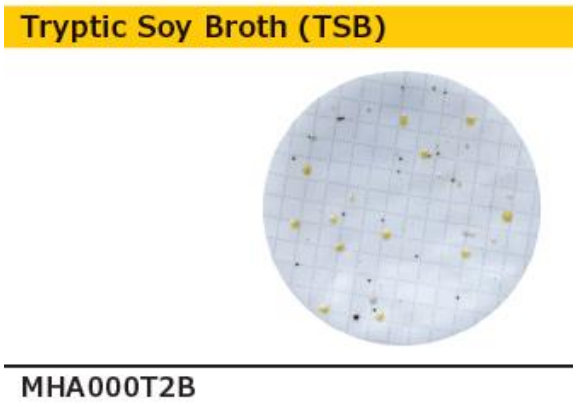
Disposal
Please dispose of used culture medium in accordance with local regulations (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Function	Control Strains	Incubation	Reference Medium	Method of Control	Expected Results
Productivity	*Escherichia coli* ATCC® 25922 (WDCM 00013)	24 +/- 2 hours at 30-35° C	Previously validated batch of Tryptic Soy Broth	Quantitative	Recovery 85-115% Characteristic colonies
	Bacillus subtilis ATCC® 6633 (WDCM 00003)				
	Pseudomonas aeruginosa ATCC® 27853 (WDCM 00025)				
	Staphylococcus epidermidis ATCC® 14990 (WDCM 00132)	48 hours at 20–25° C			
	Candida albicans ATCC® 10231(WDCM 00054)				
	Aspergillus brasiliensis ATCC® 16404 (WDCM 00053)	5 days at 20-25° C			

Please refer to the actual batch specific certificate of analysis.

Colonies appear clear to white, some may produce pigment.



Ordering Information

Product	Cat. No.	Pack size
Tryptic Soy Broth	MHA000T2B	50 x 2 mL plastic ampoules

Literature

MacFaddin JF (1985): Media for Isolation – Identification – Cultivation Maintenance of Medical Bacteria. Williams and Wilkins. Vol 1.

Forbes BA et al (1988): Diagnostic Microbiology. Baily & Scott's Diagnostic Microbiology. Vol 11.

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