

TAT Broth Base

Intended Use

TAT Broth Base is used for cultivating microorganisms from highly viscous or gelatinous materials.

Summary

TAT Broth is prepared according to the formula recommended by United States Food and Drug Administration for enrichment and further isolation and cultivation of Gram-negative bacteria in cosmetics, tropical drugs and in the sterility testing of viscous or gelatinous substances. It is especially adapted for the testing of cosmetics. Cosmetics and pharmaceutical products are subject to contamination during manufacturing and subsequent use by consumers. Preservatives are used in aqueous products to make them self-sterilizing for vegetative bacteria, yeasts and moulds, and bacteriostatic or bactericidal for spores.

Principle

Casein enzymic hydrolysate provides the nitrogen, vitamins, amino acids and carbon in TAT Broth Base. Soya Lecithin and polysorbate 20 neutralize preservatives in the cosmetics or pharmaceutical products, allowing bacteria to grow.

Formula*

Ingredients	g/L
Casein Enzymic Hydrolysate	20.0
Soya Lecithin	5.0
Final pH (at 25°C)	7.2 ± 0.2

*Adjusted to suit performance parameters.

Type of Specimen

Cosmetics and Pharmaceutical samples

Storage and Stability

Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Specimen Collection and Handling

Ensure that all samples are properly labelled.

Follow appropriate techniques for handling samples as per established guidelines.

Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.

The samples must be stored and tested within the permissible time duration.

After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions

1. Suspend 25.00 g of the powder in 960 mL purified / distilled water. Add 40 mL of polysorbate 20 (204160790500).
2. Heat in a water bath at 50°C-60°C for 15-30 minutes with occasional agitation to powder completely.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control

Dehydrated Appearance: Cream coloured, homogenous, free flowing powder.

Prepared Appearance: Light yellow coloured, clear to slightly opalescent gel solution.

Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP and growth is observed after an incubation at 30°C-35°C for 40-48 hours for bacteria.

Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤100 cfu at 30°C-35°C for 40 hours for bacteria.

Organism (ATCC)	Growth
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> (25923)	Good
<i>Bacillus spizizenii</i> (6633)	Good
<i>Candida albicans</i> 3147 (10231)	Good
<i>Pseudomonas aeruginosa</i> Strain Boston 41501 (27853)	Good
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> (6538)	Good
<i>Pseudomonas aeruginosa</i> (9027)	Good

Note: Inoculum cfu for Good growth is 10 - 100.

Growth promotion test in presence of Quaternary Ammonium Compound and Aldehyde:

Organism (ATCC)	Test*		Control**	
	I	II	I	II
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> (6538)	Good	Good	No growth	No growth
<i>Bacillus spizizenii</i> (6633)	Good	Good	No growth	No growth

*TAT Broth Base

** Soyabean Casein Digest Medium

I : with Quaternary Ammonium Compound,

II : with Aldehyde.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

References

1. Food and Drug Administration, 1969, Procedure for Examination of Tropical Drugs and Cosmetics.
2. Orth, 1993, Handbook of Cosmetic Microbiology, Marcel Dekker, Inc., New York, N.Y.
3. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.
4. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201200030100	Dehydrated Culture Media	100 g
201200030500	Dehydrated Culture Media	500 g
203200410009	Bottle Media	50 x 9 mL
203200410090	Bottle Media	90 mL
203200410190	Bottle Media	190 mL
203200410490	Bottle Media	490 mL
203200470090	Bottle Media (with Beads)	5 x 90 mL
203200480090	Bottle Media (without Beads)	5 x 90 mL

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.