



## TAT Broth

**RDM-TATB-01**

### Principle

TAT Broth Base is an enrichment medium developed to isolate and cultivate microorganisms. TAT Broth Base conforms to the formula specified by US Pharmacopeia for use in Microbial Limit Tests. It is used 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 consists of tryptone and azolectin. tryptone provides the nitrogen, vitamins, amino acids and carbon. Azolectin neutralize preservatives in the cosmetics or pharmaceutical products and allow the bacteria to grow easily. The media is fortified with Tween 20 for complete neutralization of preservatives.

Prepare serial dilutions of the sample to be tested from  $10^{-1}$  to  $10^{-6}$ . Inoculate 1 gram (1 ml) sample and 1 ml of each dilution into 40 ml of TAT Broth and after incubation, subculture the growth on MacConkey Agar.

**Use:** Recommended for enrichment and further isolation and cultivation of gram-negative bacteria in cosmetics, tropical drugs and in the sterility testing of viscous or gelatinous substance.

### Contents\*

#### Ingredients

	<b>Gram/Litre</b>
Tryptone	20.00
Azolectin	5.00
pH at 25°C	7.2 ±0.2

\* Formula adjusted for optimum performance and parameters

**Directions:** Dissolve 25.00 grams in 1000 ml distilled water, add 40 ml of tween 20. Heat to 50-60°C for 15-30 minutes with occasional agitation till media dissolve completely. Sterilize by autoclaving at 15 lbs pressure (121 °C) for 15 min, cool it to 42-45 °C and inoculate test sample aseptically.

### Specimens types analyzed

Ointments and other cosmetic products, viscous or gelatinous pharmaceutical samples, clinical and non-clinical samples etc.

### Precautions to be taken

These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

### Performance and Evaluation

The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

### Quality Control

<b>Appearance</b>	Light tan colored free flowing, homogeneous powder
<b>Reaction of 2.5% w/v aqueous solution containing 4%v/v tween 20</b>	7.2 ±0.2 at 25 °C
<b>pH</b>	7.00- 7.40
<b>Color and clarity of ready medium</b>	Light amber color clear to slightly opalescent solution.
<b>Growth Promotion properties</b>	Best at ≤ 100 CFU at 32-37 °C for 18-72 h

<b>Indicative properties</b>	Optimum at $\leq 100$ CFU at 32-37 °C for 18-48 h
<b>Negative control</b>	Performed using sterile distilled water

### Different Microbial Response

Organism	ATCC	Inoculum	Growth	Incubation Temperature	Incubation period
<i>Bacillus subtilis</i>	6633	50-100	Luxurious	33-37 °C	18-48 h
<i>Pseudomonas aeruginosa</i>	27853	50-100	Good	33-37 °C	18-48 h
<i>Staphylococcus aureus</i>	25923	50-100	Good	33-37 °C	18-48 h

### Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

**Disposal:** To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

### Reference

1. Atlas, R. M. (2005). *Handbook of media for environmental microbiology*. CRC press.
2. *British Pharmacopoeia*, (2011), The Stationery office British Pharmacopoeia
3. *Difco Manual* (1998). 11<sup>th</sup> Edition. Difco Laboratories., Division of Becton Dickinson and Company, Sparks, Maryland, USA.
4. Food and Drug Administration, (1969), *Procedure for Examination of Tropical Drugs and Cosmetics*.
5. MacFaddin J. F., (1985), *Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria*, Vol. I, Williams and Wilkins, Baltimore
6. Orth, (1993), *Handbook of Cosmetic Microbiology*, Marcel Dekker, Inc., New York, N.Y.

### Disclaimer

The information contained in the technical data sheet is to the best of our knowledge is accurate and true based on the research and development work carried out by **ReadyMED**<sup>®</sup>, Chaitanya Agro Biotech, Malkapur, Maharashtra. The products are neither intended for any therapeutic use for animal or human nor for any other *in-vivo* applications. The **ReadyMED**<sup>®</sup> products are only meant to be used for the laboratory, diagnostic, research, or further manufacturing purpose only. These technical outcomes should not be considered as the warranty of any kind expressed or implied, and no liability is accepted for infringement of any patent.

---

**CHAITANYA AGRO BIOTECH PVT. LTD.** An ISO 11134:2014, ISO 13485:2016, ISO 9001:2015 CE, CIN NO.: U24210MH1995PTC095220S,  
S. No. 120/2, Laxmi Nagar, Umbarnala Road, Malkapur-443101, Dist.: Buldana (M.S.) India. Customer Care +91-8669083859  
[rdmsales@chaitanyagroupindia.com](mailto:rdmsales@chaitanyagroupindia.com), [mkt.cabt@chaitanyagroupindia.com](mailto:mkt.cabt@chaitanyagroupindia.com), [www.chaitanyagroupindia.com](http://www.chaitanyagroupindia.com)