# TAT Broth
## SKU: 700003222, 700003223, 700003224, 700003225
## NCM0091

**Intended Use**
TAT Broth is used for the detection of microorganisms in cosmetics and topical drugs in a laboratory setting. TAT Broth is not intended for use in the diagnosis of disease or other conditions in humans.

**Description**
TAT Broth is prepared for use in the examination of cosmetics and topical drugs. TAT Broth, with the addition of Polysorbate 20, is recommended for sterility testing of viscous materials, including salves or ointments. It is especially adapted for sterility testing of cosmetics. Cosmetic products are subject to contamination during manufacturing and use by consumers. Preservatives are used in aqueous products to make them self-sterilizing for vegetative bacteria, yeast, and molds. TAT (Tryptone-Azolectin-Tween) Broth is also referred to as Fluid Casein Digest-Soy Lecithin Polysorbate 20 Medium.

**Typical Formulation**

| | |
|---|---|
| Enzymatic Digest of Casein | 20.0 g/L |
| Lecithin | 5.0 g/L |

Final pH: 7.2 ± 0.2 at 25°C
Formula is adjusted and/or supplemented as required to meet performance specifications.

**Supplement**
Polysorbate 20, 40 mL

**Precaution**
Refer to SDS

**Preparation**
1. Suspend 25 g of the medium in 960 mL of purified water until evenly dispersed.
2. At room temperature, add 40 mL of Polysorbate 20 to the suspended medium.
3. Place the mixture in a 48 - 50°C water bath for 30 minutes. Stir occasionally to dissolve.
4. Autoclave at 121°C for 15 minutes.

**Quality Control Specifications**
**Dehydrated Appearance:** Powder is homogeneous, free flowing, and off-white.

**Prepared Appearance:** Prepared medium is clear to slightly hazy, light yellow, with no to light precipitate.

**Expected Cultural Response:** Cultural response in TAT Broth incubated aerobically at 35 ± 2°C and examined after 18 - 48 hours.

| Microorganism | Approx. Inoculum (CFU) | Response |
|---|---|---|
| *Bacillus subtilis* ATCC® 9372 | 10 - 300 | Growth |
| *Candida albicans* ATCC® 10231 | 10 - 300 | Growth |
| *Escherichia coli* ATCC® 25922 | 10 - 300 | Growth |
| *Pseudomonas aeruginosa* ATCC® 27853 | 10 - 300 | Growth |
| *Salmonella typhi* ATCC® 19430 | 10 - 300 | Growth |
| *Staphylococcus aureus* ATCC® 25923 | 10 - 300 | Growth |

The organisms listed are the minimum that should be used for quality control testing.

**Test Procedure**
1. Add one gram or one mL of an undiluted sample to 40 mL of complete medium and agitate to obtain an even suspension.

2. Incubate tubes at 35 ± 2°C for 18 – 48 hours.

For a complete discussion on sterility testing refer to appropriate procedures in USP.

**Results**
Tubes or bottles exhibiting growth should be subcultured for identification.

**Expiration**
Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

**Limitation of the Procedure**
Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

**Storage**
Store sealed bottle containing the dehydrated medium at 2 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

**References**
1. Orth, D. S. 1993. Handbook of cosmetic microbiology. Marcel Dekker, Inc., New York, N.Y.
2. Food and Drug Administration. 1969. Procedure for the examination of topical drugs and cosmetics. FDA, Rockville, MD.
3. The United States Pharmacopeial Convention. 1995. The United States pharmacopeia, 23rd ed. Microbial limits tests, p. 1681-1686. The United States Pharmacopeial Convention Inc., Rockville, MD.