

T.A.T. BROTH

LQ203D

For sterility testing of highly viscous or gelatinous substances such as salves, ointments and other cosmetic product.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate	20.000
Azolectin	5.000

**Formula adjusted, standardized to suit performance parameters

Directions

Label the ready to use LQ203D bottle. Inoculate the sample and Incubate at specified temperature and time.

Principle And Interpretation

T.A.T. Broth is prepared according to the formula recommended by United States Food and Drug Administration (1) 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 (2). Preservatives are used in aqueous products to make them self-sterilizing for vegetative bacteria, yeasts and moulds, and bacteriostatic or bactericidal for spores (2).

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

Prepare decimal 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 T.A.T. Broth (3). After incubation, subculture the growth on MacConkey Agar (M081) and TSI Agar (M021).

Quality Control

Appearance

Sterile T.A.T. Medium in a glass bottle.

Colour

Light yellow coloured clear to slightly opalescent solution

Quantity of Medium

500 ml of medium in glass bottle.

pH

7.00- 7.40

Sterility test

Passes release criteria

Cultural Response

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Organism	Inoculum (CFU)	Growth
<i>Bacillus subtilis</i> ATCC 6633	50-100	good-luxuriant
<i>Candida albicans</i> ATCC 10231	50-100	good-luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853	50-100	fair-good
<i>Salmonella Typhi</i> ATCC 6539	50-100	good-luxuriant

<i>Staphylococcus aureus</i> ATCC 25923	50-100	good-luxuriant
<i>Staphylococcus aureus</i> ATCC 6538	50-100	good-luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 9027	50-100	fair-good

Storage and Shelf Life

Store between 2-8°C. Use before expiry date on the label.

Reference

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.

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