

TAT Broth w/beads

LQ525XDB

Intended Use:

Recommended for sterility testing of highly viscous or gelatinous substances such as salves, ointments and other cosmetic products, in accordance with USP.

Composition**

Ingredients	Gms / Litre
Tryptone	20.000
Azolectin	5.000
Final pH (at 25°C)	7.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Label the ready to use LQ525XDB bottle. Inoculate 50-100 cfu 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 (4). Preservatives are used in aqueous products to make them self-sterilizing for vegetative bacteria, yeasts and moulds, and bacteriostatic or bactericidal for spores (4).

Tryptone 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.

Type of specimen

Pharmaceutical and Cosmetics samples for sterility testing.

Specimen Collection and Handling:

Prepare decimal dilutions of the sample to be tested from 10^{-1} to 10^{-6} . Inoculate 1gram (1 ml) sample and 1 ml of each dilution into 40 ml of T.A.T. Broth (5). After incubation, subculture the growth on MacConkey Agar (MP081) and TSI Agar (SL045). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Further biochemical and serological tests must be carried out for further identification.

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Sterile T.A.T. Broth with glass beads in a glass bottle.

Colour

Light yellow coloured clear to slightly opalescent solution.

Quantity of Medium

490ml of medium in glass bottle.

Sterility test

Passes release criteria

pH

7.00-7.40

Cultural Response

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

Organism	Inoculum (CFU)	Growth
<i>Bacillus subtilis</i> subsp. <i>spizizenii</i> ATCC 6633 (00003*)	50-100	good-luxuriant
<i>Candida albicans</i> ATCC 10231 (00054*)	50-100	good-luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 27853 (00025*)	50-100	fair-good
<i>Salmonella</i> Typhi ATCC 6539	50-100	good-luxuriant
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 25923 (00034*)	50-100	good-luxuriant
<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC 6538 (00032*)	50-100	good-luxuriant
<i>Pseudomonas aeruginosa</i> ATCC 9027 (00026*)	50-100	fair-good

Key : *Corresponding WDCM numbers.

Storage and Shelf Life

Store between 15-25°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

Disposal

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with sample must be decontaminated and disposed of in accordance with current laboratory techniques (2,3).

Reference

1. Food and Drug Administration, 1969, Procedure for Examination of Tropical Drugs and Cosmetics.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Orth, 1993, Handbook of Cosmetic Microbiology, Marcel Dekker, Inc., New York, N.Y.
5. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. I, Williams and Wilkins, Baltimore.

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Disclaimer :

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