

Casein-peptone Lecithin Polysorbate Broth Base - TAT Broth (i23273)

Casein-Peptone Lecithin Polysorbate Broth Base with added polysorbate 20 is used for cultivating microorganisms from highly viscous or gelatinous materials.

Industry: Pharmaceutical / cosmetics / Raw material

Principles & Uses

Casein Peptone Lecithin Polysorbate Broth Base, also known as TAT Broth, formulated for sample dilution in pharmaceutical, cosmetics and etc. for enumeration. facilitates optimal conditions for spore germination and regeneration of microorganisms. The relatively high casein peptone content aids damaged microorganisms. Lecithin and polysorbate 20 collaborate to neutralize antimicrobial compounds, reported to inactivate various agents like cetrimide and chlorohexidine. Thioglycollate is excluded, as thioamino acids in casein peptone deactivate heavy metal-containing preservatives, inhibiting spores of *Bacillus* and *Clostridium* species. This composition ensures an effective medium for sample dilution, spore germination, and microbial detection in diverse applications.

Composition (gr/L)

Pancreatic Digest of Casein 20 g, Soy Lecithin 5 g.

Final pH at 25°C 7.2 ± 0.2

Preparation from dehydrated Powder

Suspend 25 g of powder in 960 ml of distilled water. Add 40 ml of Polysorbate (Tween 20). Heat in a water bath at 50 - 60°C for 15 - 30 minutes with occasional agitation to dissolve completely. Autoclave at 121°C for 15 minutes.

Quality Control

Dehydrated Appearance: Beige, free-flowing, homogeneous.

Prepared Appearance: Light amber, clear to very slightly opalescent, may have a very slight precipitate.

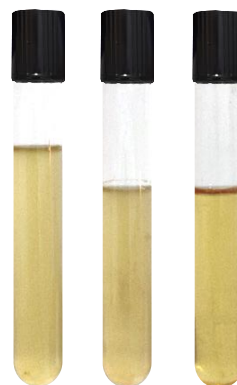
Reaction of 2.5% Solution at 25°C: pH 7.2 ± 0.2

Cultural Response

The medium inoculated with the organisms listed below. Cultural characteristics were observed after incubation at 35 ± 2°C for 18 - 48 hours.

Organism (ATCC*)	Recovery
<i>Bacillus subtilis</i> (6633)	Good
<i>Candida albicans</i> (26790)	Fair to Good
<i>Pseudomonas aeruginosa</i> (27853)	Good
<i>Staphylococcus aureus</i> (25923)	Good

*ATCC is a registered trade mark of the American Type Culture Collection.



Staphylococcus aureus (left). *Pseudomonas aeruginosa* (middle). Prepared Culture Media (right).

Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.