

Technical Data Sheet

Casein Peptone Lecithine Polysorbate Broth

Ordering number: 1.46495.0010

Casein Peptone Lecithine Polysorbate Broth (TAT Broth) is used for diluting samples of pharmaceutical, cosmetic and other raw materials or final products when determining microbial counts.

The formulation of the medium complies with the recommendations of the United States Pharmacopoeia.

Mode of Action

The relatively high casein peptone in this medium provides optimal conditions for the spore germination and regeneration of even damaged microorganisms. The neutralizing additives reverse the growth inhibitory effect of most disinfectants and antiseptics. Lecithin from soya inactivates cetrimide, chlorohexidine, chlorinated phenols, desqualinium acetate and polymyxin B. Polysorbate (Tween®) 20 inactivates phenols, phenol derivatives, benzoic acid, p-hydroxybenzoic acid and their esters. The combination of lecithin and polysorbate (Tween®) 20 inactivates many antimicrobial compounds as quaternary ammonium and phosphonium compounds.

Typical Composition

Casein Peptone	20 g/l
Lecithin from Soy	5 g/l
Polysorbate (Tween®) 20	40 ml/l

The appearance of the medium is clear to slightly turbid and yellowish. The pH value is in the range of 6.9-7.3. The media can be adjusted and/or supplemented according to the performance criteria required.

Application and Interpretation

In case of growth it is recommended to identify the colonies using microbiological methods (e.g. selective media, biochemical methods) in order to identify and remove the source of contamination.

Storage and Shelf life

The product can be used for tests until the expiry date if protected from light and properly sealed at +2 °C to +25 °C.

The testing procedures as described on the CoA can be started up to the expiry date printed on the label.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Control Strains	ATCC #	Inoculum CFU	Incubation	Expected Results
<i>Staphylococcus aureus</i>	6538	10-100	20-24 h at 33-35 °C	good growth; pronounced turbidity
<i>Escherichia coli</i>	8739	10-100	20-24 h at 33-35 °C	good growth; pronounced turbidity
<i>Pseudomonas aeruginosa</i>	9027	10-100	20-24 h at 33-35 °C	good growth; pronounced turbidity
<i>Bacillus subtilis</i>	6633	10-100	20-24 h at 33-35 °C	good growth; pronounced turbidity
<i>Candida albicans</i>	10231	10-100	44-48 h at 20-25 °C	good growth; pronounced turbidity

Please refer to the actual batch related Certificate of Analysis.

Literature

United States Pharmacopoeia 38 (2015): <71> Sterility Tests; <61> Microbial Limit Tests.

European Pharmacopoeia 8.0 (2014): 2.6.1. Sterility; 2.6.12. Microbial examination of non-sterile products (total viable aerobic count).

Orth, D.S. (1993): Handbook of cosmetic microbiology. Marcel Dekker, Inc. New York, NY.

BROWN, M.R.W. (1966): Turbidimetric method for the rapid evaluation of antimicrobial agents. Inactivation of preservatives by nonionic agent– J. Soc. Cosm. Chem., 17; 185-195.

CHIORO, C.O., MAMBLETON, R.Q., and RIGBY, G. (1965): The inhibition of spores of *Bacillus subtilis* by cetrимide retained on washed membrane spores – J. Appl. Bact., 28; 322-330.

EVANS, W.P. (1964): The solubilisation and inactivation of preservatives by nonionic detergents – J. Pharm. Pharmacol., 16; 323-331.

GIBBS, P.A. (1964): Factors affecting the germination of spores of *Clostridium bifermentans* – J. gen. Microbiol., 37; 41-48.

Ordering Information

Product	Cat. No.	Pack size
Casein Peptone Lecithine Polysorbate Broth	1.46495.0010	10 x 90 ml bottle

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