

Soyabean Casein Digest Agar (Tryptic Soy Agar)

Intended Use

Soyabean Casein Digest Agar is a universal culture medium used for cultivation of a wide variety of microorganisms from clinical and non-clinical samples and for sterility testing in pharmaceutical procedures.

Typical Composition (g/litre)

Tryptone from casein 15.0; peptone from soy meal 5.0; sodium chloride 5.0; agar-agar 15.0.

Mode of Action

Soyabean Casein Digest Agar is a widely used medium, which supports the growth of wide variety of organisms. The medium with addition of blood provides perfectly defined haemolysis zones, while preventing the lysis of erythrocytes due to its sodium chloride content.

It has been frequently used in the health industry to produce antigens, toxins etc. Its simple and inhibitor-free composition makes it suitable for the detection of antimicrobial agents in the food and other products. Various pharmacopoeias recommend Tryptone Soya Agar as sterility testing medium. The combination of tryptone and soya peptone makes this media nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Sodium chloride maintains the osmotic balance

Preparation

Suspend 40 g/litre, autoclave (15 min at 121 °C) at 15 lbs pressure. If desired, aseptically add 5% v/v defibrinated blood in previously cooled medium to 45-50°C for cultivation. Mix well and pour into sterile Petri plates.

pH: 7.3 ± 0.2 at 25 °C.

After preparation, both media are clear and yellowish-brown.

Storage

Store between 10-30°C in a tightly closed container. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle.

Specimen

Pharmaceutical samples, Clinical samples.

Experimental Procedure and Evaluation

Depend on the purpose for which the media are used.

Incubation: 24 hours at 35°C aerobically, for up to 7 days for the sterility-test at room temperature.

Quality Control

Organism	Inoculum	Recovery	Recovery w/ blood	Haemolysis
Bacillus subtilis subsp. Spizizenii ATCC 6633	50 - 100	>=70 %	>=70 %	none
Staphylococcus aureus ATCC 25923	50 - 100	>=70 %	>=70 %	beta
Escherichia coli ATCC 25922	50 - 100	>=70 %	>=70 %	none
Escherichia coli ATCC 8739	50 - 100	>=70 %	>=70 %	none
Escherichia coli ATCC 11775	50 - 100	>=70 %	>=70 %	none
Escherichia coli NCTC 13167	50 - 100	>=70 %	>=70 %	none
Escherichia coli NCTC 9002	50 - 100	>=70 %	>=70 %	none
Pseudomonas aeruginosa ATCC 27853	50 - 100	>=70 %	>=70 %	-
Pseudomonas aeruginosa ATCC 9027	50 - 100	>=70 %	>=70 %	-
Pseudomonas aeruginosa ATCC 10145	50 - 100	>=70 %	>=70 %	-
Salmonella Abony NCTC 6017	50 - 100	>=70 %	>=70 %	-
Micrococcus luteus ATCC 9341	50 - 100	>=70 %	>=70 %	-
Streptococcus pneumoniae ATCC 6305	50 - 100	>=70 %	>=70 %	-
Salmonella Typhimurium ATCC 14028	50 - 100	>=70 %	>=70 %	-
Enterococcus faecalis ATCC 29212	50 - 100	>=70 %	>=70 %	-
Candida albicans ATCC 10231	50 - 100	>=70 %	>=70 %	-
Candida albicans ATCC 2091	50 - 100	>=70 %	>=70 %	-
Aspergillus brasiliensis ATCC 16404	50 - 100	>=70 %	>=70 %	-
Clostridium perfringenes ATCC 13124	50 - 100	>=70 %	>=70 %	-

Reference

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