



Technical Data

HiEncap™ Soyabean Casein Digest Medium (HiEncap™ Tryptone Soya Broth)

EC011CCL

HiEncap™ Soyabean Casein Digest Medium (HiEncap™ Tryptone Soya Broth) is a general purpose medium used for cultivation of a wide variety of microorganisms and recommended for sterility testing of moulds and lower bacteria.

Composition**

| Ingredients | Gms / Litre |
|--------------------------------|-------------|
| Pancreatic digest of casein | 17.000 |
| Papaic digest of soyabean meal | 3.000 |
| Sodium chloride | 5.000 |
| Dextrose | 2.500 |
| Dibasic potassium phosphate | 2.500 |
| Final pH (at 25°C) | 7.3±0.2 |

**Formula adjusted, standardized to suit performance parameters

Directions

Each capsule contains 7.5 grams of media. Suspend 1 capsule in 250 ml (4 capsules in 1000 ml) purified or distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Mix well and dispense as desired.

Note: If any fibres are observed in the solution, it is recommended to filter the solution by using a 0.22 micron filter to eliminate the possibility of presence of fibres.

Principle And Interpretation

Soyabean Casein Digest Medium is recommended by various pharmacopeias as a sterility testing and as a microbial limit testing medium (1, 2, 3). This medium is a highly nutritious medium used for cultivation of a wide variety of organisms (4).

The combination of pancreatic digest of casein and papaic digest of soyabean meal makes the medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Dextrose and dibasic potassium phosphate serve as the carbohydrate source and the buffer, respectively in the medium. Sodium chloride maintains the osmotic balance of the medium.

Quality Control

Appearance

Gelatin capsule containing cream to yellow coloured granulated media

Colour and Clarity of prepared medium

Light yellow coloured clear solution without any precipitate.

Quantity

Each capsule contains 7.5 grams of medium sufficient for 250 ml media

Reaction

pH of 3.0% w/v aqueous solution at 25°C . pH : 7.3±0.2

pH

7.10-7.50

Cultural Response

Cultural characteristics observed after an incubation at 30-35°C for ≤ 3 days for Bacteria and at 20-25°C for ≤ 5 days for fungi

Cultural Response

| Organism | Growth | Incubation period | Inoculum (CFU) | Incubation temperature |
|--|---------------|--------------------------|-----------------------|-------------------------------|
| Growth promoting | | | | |
| <i>Escherichia coli</i> ATCC 8739 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Escherichia coli</i> ATCC 25922 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Staphylococcus aureus</i> ATCC 6538 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Staphylococcus aureus</i> ATCC 25923 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Candida albicans</i> ATCC 2091 | luxuriant | <=5 d | 50 -100 | 30 -35 °C |
| <i>Streptococcus pneumoniae</i> ATCC 6305 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Pseudomonas aeruginosa</i> ATCC 27853 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Salmonella</i> Typhimurium ATCC 14028 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Salmonella</i> Abony NCTC 6017 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Bacillus subtilis</i> ATCC 6633 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Micrococcus luteus</i> ATCC 9341 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Escherichia coli</i> NCTC 9002 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| <i>Pseudomonas aeruginosa</i> ATCC 9027 | luxuriant | 18 -24 hrs | 50 -100 | 30 -35 °C |
| Sterility Testing- Growth promotion+ Validation | | | | |
| <i>Micrococcus luteus</i> ATCC 9341 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Salmonella</i> Abony NCTC 6017 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Candida albicans</i> ATCC 10231 | luxuriant | <=5 d | 50 -100 | 30 -35 °C |
| * <i>Aspergillus brasiliensis</i> ATCC 16404 | luxuriant | <=5 d | 50 -100 | 30 -35 °C |
| <i>Escherichia coli</i> ATCC 8739 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Escherichia coli</i> ATCC 25922 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Escherichia coli</i> NCTC 9002 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Bacillus subtilis</i> ATCC 6633 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Salmonella</i> Typhimurium ATCC 14028 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Streptococcus pneumoniae</i> ATCC 6305 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Staphylococcus aureus</i> ATCC 6538 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Staphylococcus aureus</i> ATCC 25923 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Pseudomonas aeruginosa</i> ATCC 9027 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |
| <i>Pseudomonas aeruginosa</i> ATCC 27853 | luxuriant | <=3 d | 50 -100 | 20 -25 °C |

* Key: Formerly known as *Aspergillus niger*

Storage and Shelf Life

Store below 30°C in a tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Reference

1. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams & Wilkins, Baltimore, M.d.
2. The United States Pharmacopeia, 2008, USP31/NF26, The United States Pharmacopeial Convention, Rockville, MD.
3. Indian Pharmacopeia, 2007, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India.
4. Forbes B. A., Sahm D. F. and Weissfeld A. S., 1998, Bailey & Scotts Diagnostic Microbiology, 10th Ed., Mosby, Inc. St. Louis, Mo.

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