



Technical Data

Soyabean Casein Digest HiCynth™ Agar (Tryptone Soya HiCynth™ Agar) (Casein Soyabean Digest HiCynth™ Agar) MCD290

Soyabean Casein Digest HiCynth™ Agar is a general purpose medium used for cultivation of a wide variety of microorganisms.

Composition**

Ingredients	Gms / Litre
HiCynth™ Peptone No.1*	15.000
HiCynth™ Peptone No.6*	5.000
Sodium chloride	5.000
Agar	15.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

*Chemically defined peptones

Directions

Suspend 40 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. If desired, aseptically add 5% v/v defibrinated blood in previously cooled medium. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Soyabean Casein Digest Agar is a widely used medium, which supports the growth of wide variety of organisms even that of fastidious ones such as *Neisseria*, *Listeria*, and *Brucella* etc. Soyabean Casein Digest HiCynth™ Agar is a modification of Soyabean Casein digest Agar prepared by completely replacing animal peptones with chemically defined peptones to avoid BSE/TSE risks associated with animal peptones. 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. Tryptone Soya Agar confirms as per USP (1) and is used in microbial limit test and antimicrobial preservative- effective test. Gunn et al (3) used this medium for the growth of fastidious organisms and study of haemolytic reaction after addition of 5%v/v blood.

HiCynth™ Peptone No.1 and HiCynth™ Peptone No.6 makes this media nutritious by providing nitrogen and carbon source, long chain amino acids, vitamins and other growth factors for the growth of microorganisms. Sodium chloride maintains the osmotic balance.

Soyabean Casein Digest HiCynth™ Agar does not contain X and V growth factors. It can be conveniently used in determining the requirements of these growth factors by isolates of *Haemophilus* by the addition of X-factor (DD020), V-factor (DD021), and X+V factor discs (DD022) factor to inoculated TSA plates (4).

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Basal Medium : Light yellow coloured clear to slightly opalescent gel. After addition of 5-7% w/v sterile defibrinated blood : Cherry red coloured opaque gel forms in Petri plates

Reaction

pH of 4.0% w/v aqueous solution at 25°C. pH : 7.3±0.2

pH

7.10-7.50

Cultural response

Please refer disclaimer Overleaf.

Cultural characteristics was observed after an incubation for Bacterial at 30-35°C 18-24 hours and for Fungal at 20-25°C <=5days.

Organism	Inoculum (CFU)	Growth	Recovery	Growth w/ blood	Recovery w/ blood	Haemolysis
<i>Bacillus subtilis</i> ATCC 6633	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
<i>Staphylococcus aureus</i> ATCC 25923	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	beta
<i>Staphylococcus aureus</i> ATCC 6538	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	beta
<i>Escherichia coli</i> ATCC 25922	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
<i>Escherichia coli</i> ATCC 8739	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
<i>Escherichia coli</i> NCTC 9002	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
<i>Pseudomonas aeruginosa</i> ATCC 27853	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
<i>Pseudomonas aeruginosa</i> ATCC 9027	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
<i>Salmonella Abony</i> NCTC 6017	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
<i>Micrococcus luteus</i> ATCC 9341	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
<i>Streptococcus pneumoniae</i> ATCC 6305	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	alpha
<i>Salmonella Typhimurium</i> ATCC 14028	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
<i>Candida albicans</i> ATCC 10231	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
<i>Candida albicans</i> ATCC 2091	50 -100	luxuriant	>=70 %	luxuriant	>=70 %	none
* <i>Aspergillus brasiliensis</i> ATCC 16404	50 -100	good-luxuriant	>=50%	good-luxuriant	>=70%	none

Storage and Shelf Life

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

Reference

1. The United States Pharmacopoeia / National Formulary, 2016, The United States Pharmacopoeial Convention Inc., Rockville, MD.
2. Indian Pharmacopoeia, 2014, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India.
3. Gunn B. A., Ohashi D K., Gaydos C. A., Holt E. S., 1977, J. Clin. Microbiol., 5(6) : 650.
4. Forbes B. A., Sahm A. S. and Weissfeld D. F., 1998, Bailey and Scotts Diagnostic Microbiology, 10th Ed., Mosby Inc. St. Louis, Mo

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