# Soyabean Casein Digest Agar with 0.5% Polysorbate 80, 0.05% Soya Lecithin and 2% Glycerol Plate (Triple Layer Pack, Gamma-Irradiated)

#### **Intended Use**

Soyabean Casein Digest Agar Plate is a general-purpose medium used for the cultivation of a wide variety of microorganisms and for environmental monitoring in clean room area.

Soyabean Casein Digest Agar Plate with Neutralizers is used for determining efficacy of sanitization of containers, equipment, surfaces, water miscible cosmetics etc.

### **Summary**

Gamma Irradiated Soyabean Casein Digest Agar plates is a general purpose, non-selective media plates providing enough nutrients to allow for a wide variety of microorganisms to grow. They are used for a wide range of applications including culture maintenance, enumeration (counting), isolation of pure cultures and for routine microbial limit testing & environmental monitoring. As specified in USP, Soyabean Casein Digest Agar media is used for total aerobic microbial count to help in microbial limit testing procedures.

Gamma Irradiated Soyabean Casein Digest Agar Plate with Neutralizers are generally used for the detection and enumeration of microorganisms present on the surfaces of sanitary importance and also in environmental monitoring of microbial contamination in clean room.

# **Principle**

Gamma Irradiated Soyabean Casein Digest Agar plates are triple - layer packed in stacks of five plates. The presence of an irradiation indicator enables the rapid and easy visual confirmation by the cleanroom operator that the medium is irradiated. Each pack (media and their wrappings) receives an irradiation dose between 23 to 32 kGy to guarantee that no viable contaminants are present. The combination of casein and soy peptones in Soyabean Casein Digest Agar renders the medium highly nutritious by supplying organic nitrogen, particularly amino acids and longer-chained peptides. Polysorbate 80 (Tween 80) is a neutralizer reported to inactivate residual disinfectants.

# Formula\*

Ingredients	g/L
Pancreatic Digest of Casein	15.0
Papaic Digest of Soyabean Meal	5.0
Sodium Chloride	5.0
Polysorbate 80	0.5 %
Soya Lecithin	0.05 %
Glycerol	2.0 %
Agar	15.0

<sup>\*</sup>Adjusted to suit performance parameters.

## **Additional Material Required**

Air Sampler – AccuBas Ax2, Bacteriology Incubator, Anaerobic Container / Anaerobic Culture jar, anaerobic Gas Pack & Anaerobic Indicator Strip.

# Instruction for use

- 1. Open the sterile pack and remove the respective plate aseptically.
- 2. Inoculate/streak the plate as per standard procedure.
- 3. Sampling:
  - I. For settle plate, expose the plates for 4 hours. During exposure, care should be taken for complete exposure of media.
  - II. For dynamic air sampling, use air sampler.
- 4. Incubate the plates in inverted position as per standard guidelines.

### Reading and interpretation

- 1. After incubation, observe the microbial growth and count the colonies.
- 2. Interpretation is assured by user.
- 3. User is responsible to define the action limits as per standard guidelines and alert limits on the basis of trend analysis & other relevant data.

# **Quality Control**

**Appearance:** Gel with smooth and even surface, without any cracks, bubbles and drying or shrinking of media.

**Colour of Medium:** Light yellow coloured, very slightly opalescent gel in petriplates.

**Quantity of Medium:**  $29 \pm 2$  g in 90 mm petriplate.

**pH at 25°C \pm 2°C:** 7.3  $\pm$  0.2

# Gamma Irradiation: The above said product was Gamma Irradiated between 23 KGy - 32KGy.

**Growth Promotion Test:** Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP and growth is observed after an incubation at  $30^{\circ}\text{C}-35^{\circ}\text{C}$  for  $\leq 3$  days for bacteria and at  $30^{\circ}\text{C}-35^{\circ}\text{C}$  and  $20^{\circ}\text{C}-25^{\circ}\text{C}$  for  $\leq 5$  days for fungi.

**Growth Promoting Properties:** The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤ 100 cfu of appropriate microorganism.

Organism (ATCC) Escherichia coli (8739)	<b>Growth</b> Good	Incubation Temperature 30°C-35°C	Incubation Period 18 Hours
Staphylococcus aureus subsp. aureus (6538)	Good	30°C-35°C	18 Hours
Pseudomonas aeruginosa (9027)	Good	30°C-35°C	18 Hours
Bacillus spizizenii (6633)	Good	30°C-35°C	18 Hours
Salmonella enterica subsp. enterica serovar Abony (NCTC 6017)	Good	30°C-35°C	18 Hours
Salmonella enterica subsp. enterica serovar Typhimurium (14028)	Good	30°C-35°C	18 Hours
Candida albicans 3147 (10231)	Good	30°C-35°C	24 Hours
Candida albicans 3147 (10231)	Good	20°C-25°C	48 Hours
Aspergillus brasiliensis WLRI 034(120) (16404)	Good	30°C-35°C	48 Hours
Aspergillus brasiliensis WLRI 034(120) (16404)	Good	20°C-25°C	72 Hours

**Note:** For Good growth - growth obtained on test media should not differ by a factor greater than 2 from calculated value for a standardized inoculum.

# **Limitation of the Procedure**

The effectiveness of neutralization activity with this medium depends on both the type and concentration of the neutralizers.

#### Storage and Shelf Life

- 1. Store between 15°C-25°C to avoid water condensation. Condensation can be prevented by avoiding quick temperature shifts and mechanical stress.
- 2. Under optimal conditions, the medium has a shelf life of 6 months. Use before expiry mentioned on the label.

#### Reference

- 1. USP Chapter 1116: microbiological evaluation of cleanrooms and other controlled environments.
- 2. USP Chapter 61: Microbiological Examination of Nonsterile Products: Microbial enumeration Tests.
- 3. USP Chapter 62: Microbiological Examination of Nonsterile Products: Tests for Specified Microorganism.
- 4. USP Chapter 1072: Disinfectants and Antiseptics.
- 5. Data on file: Microxpress<sup>®</sup>, A Division of Tulip Diagnostics (P) Ltd.

# **Product Presentation:**

Cat No.

Soyabean Casein Digest Agar Plate with 0.5% Polysorbate 80, 0.05 % Soya Lecithin and 2% Glycerol 205190990100

**Product** 

**Pack Size** 100 Plates

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.