



# Technical Data

## Soyabean Casein Digest Medium w/ Mannitol, Sterile powder M1856G

Gamma irradiated sterile powder recommended for the evaluation of sterility in manufacturing process. It can also be used for cultivation of a wide variety of microorganisms.

### Composition\*\*

Ingredients	Gms / Litre
Pancreatic digest of casein	17.000
Papaic digest of soyabean meal	3.000
Sodium chloride	5.000
Phenol red	0.018
Mannitol	5.000
Final pH ( at 25°C)	7.3±0.2

\*\*Formula adjusted, standardized to suit performance parameters

### Directions

Sterile powder can be used directly for the evaluation of sterility in manufacturing process. For sterile liquid medium aseptically add 30.02 grams in 1000 ml sterile distilled / purified water. Heat if necessary to dissolve the medium completely. DO NOT AUTOCLAVE OR OVERHEAT. Excessive heating is detrimental. Dispense aseptically in sterile tubes or flasks as desired.

### Principle And Interpretation

Soyabean Casein Digest Medium is recommended as a sterility testing medium (1,2). Soyabean Casein Digest Medium w/ Mannitol is modified by addition of mannitol as the fermentable carbohydrate and phenol red as the indicator. It is also used for the sensitivity testing by the tube dilution method for antimicrobial agents (3).

The combination of pancreatic digest of casein and papaic digest of soyabean meal makes this medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Sodium chloride maintains the osmotic balance of the medium. Mannitol is the fermentable carbohydrate and phenol red is the pH indicator. Organisms ferment mannitol and produce acid which is indicated by the colour change of the medium from red to yellow.

### Quality Control

#### Appearance

Light yellow to pink homogeneous free flowing powder

#### Colour and Clarity of prepared medium

Red coloured clear solution without any precipitate.

#### 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 18-48 hours .

#### Cultural Response

Organism	Inoculum (CFU)	Growth	Colour change
<b>Cultural Response</b> <i>Staphylococcus aureus</i> ATCC 6538	50-100	luxuriant	Red to yellow
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant	Red to yellow

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<i>Escherichia coli</i> ATCC 8739	50-100	luxuriant	Red to yellow
<i>Escherichia coli</i> ATCC 25922	50-100	luxuriant	Red to yellow
<i>Escherichia coli</i> NCTC 9002	50-100	luxuriant	Red to yellow
<i>Bacillus subtilis</i> ATCC 6633	50-100	luxuriant	Red to yellow
<i>Salmonella</i> Typhimurium ATCC 14028	50 -100	luxuriant	Red to yellow
<i>Salmonella</i> Abony NCTC 6017	50-100	luxuriant	Red to yellow

### Storage and Shelf Life

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

### Reference

- 1.The United States Pharmacopoeia / National Formulary, 2012, The United States Pharmacopeial Convention Inc., Rockville, MD.
- 2.Indian Pharmacopeia, 2010, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India.
- 3.Wright and Welch, 1959-60, Antibiotics Ann., 61.

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