

Technical Information

Soyabean Casein Digest Medium w/ Mannitol, Sterile powder

Product Code: DM 2856G

Application: - Soyabean Casein Digest Medium w/ Mannitol, Sterile powder Gamma irradiated sterile powder used 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

Principle & Interpretation

Soyabean Casein Digest Medium w/ Mannitol, powder is used 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 helps to maintain 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.

Methodology

Sterile powder can be used directly for the evaluation of sterility in manufacturing process. For sterile liquid medium aseptically add 30.02 grams of dehydrated powder media in 1000 ml sterile distilled water. Mix thoroughly & 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.

Quality Control

Appearance

Light yellow to pink homogeneous free flowing powder.

Colour and Clarity

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 Range

7.10-7.50

Cultural Response

DM 2856G: Cultural characteristics observed after an incubation at 30-35°C for 18-48 hours.



Dehydrated Culture Media
Bases / Media Supplements

Organism	Inoculum (CFU)	Growth	Recovery
<i>Staphylococcus aureus</i> ATCC 6538	50-100	luxuriant	Red to yellow
<i>Staphylococcus aureus</i> ATCC 25923	50-100	luxuriant	Red to yellow
<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 Typhimurium</i> ATCC 14028	50-100	luxuriant	Red to yellow
<i>Salmonella Abony</i> NCTC 6017	50-100	luxuriant	Red to yellow

Storage and Shelf Life

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

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

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

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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