



PRODUCT SPECIFICATION SHEET

Soyabean Casein Digest Medium w/o Dextrose (Tryptone Soya Broth w/o Dextrose) (DM278)

Intended Use

Soyabean Casein Digest Medium w/o Dextrose (Tryptone Soya Broth w/o Dextrose) (DM278) is recommended for cultivation of anaerobic microorganisms in the absence of carbohydrate.

Product Summary and Explanation

Soyabean Casein Digest Medium is recommended by various pharmacopeias as a sterility testing and as a microbial limit testing medium.⁽¹⁻³⁾ This medium is a highly nutritious medium used for cultivation of a wide variety of organisms, including common aerobic, facultative and anaerobic bacteria and fungi. ^(1, 7-9) This medium was originally developed for use without blood in determining the effectiveness of sulfonamides against pneumococci and other organisms.⁽⁴⁾ This formulation is included in the *USP* as a medium for use in performing microbial enumeration tests and tests for specified microorganisms when testing non-sterile pharmaceutical products.⁽²⁾ Soyabean Casein Digest Medium was chosen by the USDA Animal and Plant Health Inspection Service for detecting viable bacteria in live vaccines.⁽¹⁰⁾ Soyabean Casein Digest Medium is recommended for testing bacterial contaminants in cosmetics and complies with established standards in the food industry.^(11, 12) Because of its capacity for growth promotion, this medium is also recommended for use as the inoculum broth for disc diffusion and agar dilution antimicrobial susceptibility testing as standardized by the Clinical and Laboratory Standards Institute (CLSI).⁽¹²⁻¹⁸⁾

Soyabean Casein Digest Medium w/o Dextrose is a modification of Soyabean Casein Digest Medium and is used as a base for preparation of more complex media for the cultivation of organisms like *Neisseria*, pathogenic *Streptococci* etc. It is a basal medium to which carbohydrates may be added for use in fermentation studies of fastidious and non-fastidious organisms. This medium is used for the cultivation of wide variety of microorganisms when the presence of carbohydrate is undesirable. The carbohydrate concentration used most frequently in fermentation reactions is 0.5% or 1%. Phenol red and other indicators may also be added.

Principles of the Procedure

Soyabean Casein Digest Medium contains 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. Dipotassium phosphate serves as a buffering agent in the medium. Sodium chloride maintains the osmotic balance of the medium.

Formula / Liter

Ingredients	Gms / Liter
Casein enzymic hydrolysate	17.00
Papaic digest of soyabean meal	3.00
Sodium chloride	5.00
Dibasic potassium phosphate	2.50
Final pH: 7.3 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.





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Directions

1. Suspend 27.5 grams of the medium in one liter of distilled water.
2. Heat if necessary to dissolve the medium completely.
3. Dispense as desired
4. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.

Quality Control Specifications

Dehydrated Appearance	Cream to yellow homogeneous free flowing powder
Prepared Medium	Light yellow coloured clear solution without any precipitate
Reaction of 2.75% Solution	pH : 7.3 ± 0.2 at 25°C
Gel Strength	Not Applicable

Expected Cultural Response: Cultural characteristics observed after an incubation at 35 - 37°C for 18 - 48 hours.

Sr. No.	Organisms	Results to be achieved	
		Inoculum (CFU)	Growth
1.	<i>Bacteroides fragilis</i> ATCC 25285	50 -100	good-luxuriant
2.	<i>Clostridium perfringens</i> ATCC 12924	50 -100	good-luxuriant
3.	<i>Neisseria meningitidis</i> ATCC 13090	50 -100	good
4.	<i>Staphylococcus epidermidis</i> ATCC 12228	50 -100	good-luxuriant
5.	<i>Streptococcus pneumonia</i> ATCC 6303	50 -100	good-luxuriant
6.	<i>Streptococcus pyogenes</i> ATCC 19615	50 -100	good-luxuriant

The organisms listed are the minimum that should be used for quality control testing.

Test Procedure

Refer to appropriate references for standard test procedures.

Results

Growth in broth media is indicated by the presence of turbidity compared to an uninoculated control. Broth cultures should be held for at least a week before discarding as negative. Refer appropriate references and test procedures for interpretation of results.

Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.





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Limitations of the Procedure

1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
2. Consult appropriate texts for detailed information and recommended procedures.

Packaging

Product Name : Soyabean Casein Digest Medium w/o Dextrose (Tryptone Soya Broth w/o Dextrose)

Product Code : DM278

Available Pack sizes : 500gm

References

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Further Information

For further information please contact your local MICROMASTER Representative.





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