



PRODUCT SPECIFICATION SHEET

Soyabean Casein Digest Medium w/ 0.1% Agar (Tryptone Soya Broth w/ 0.1% Agar) (DM488)

Intended Use

Soyabean Casein Digest Medium w/ 0.1% Agar (Tryptone Soya Broth w/ 0.1% Agar) (DM488) is recommended for cultivation of fastidious and non-fastidious microorganisms, especially anaerobic bacteria from root canal and other clinical specimens.

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 with 0.1% Agar is used for culturing organisms especially anaerobes from root canals, blood and other clinical samples. Inclusion of agar to this medium is useful for isolating anaerobic oral *Vibrio's*⁽¹⁹⁾ and also anaerobic organisms causing nasal sinusitis.⁽²⁰⁾

Principles of the Procedure

Soyabean Casein Digest Medium contains casein enzymic hydrolysate and papaic digest of soyabean meal which makes the medium nutritious by providing amino acids and long chain peptides for the growth of microorganisms. Dextrose is a fermentable source of carbohydrate. Dibasic potassium phosphate serves as a buffering agent in the medium. Sodium chloride maintains the osmotic balance of the medium. Small percentage of agar helps in creating moderately anaerobic condition in the depth of the medium.

Formula / Liter

Ingredients	Gms / Liter
Casein enzymic hydrolysate	17.00
Papaic digest of soyabean meal	3.00
Sodium chloride	5.00
Dextrose	2.50
Dibasic potassium phosphate	2.50
Agar	1.00
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.





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2. IRRITANT. Irritating to eyes, respiratory system, and skin.

Directions

1. Suspend 31 grams of the medium in one liter of distilled water.
2. Heat to boiling to dissolve the medium completely.
3. Mix well and 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 3.1% 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 pneumoniae</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.

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.





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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.

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/ 0.1% Agar (Tryptone Soya Broth w/ 0.1% Agar)

Product Code : DM488

Available Pack sizes : 500gm

References

1. MacFaddin J. F., 1985, Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria, Vol. 1, Williams & Wilkins, Baltimore, M.d.
2. United States Pharmacopeial Convention, Inc. 2008. The United States pharmacopeia 31/The national formulary 26, Supp. 1, 8-1-08, online. United States Pharmacopeial Convention, Inc., Rockville, Md.
3. Indian Pharmacopeia, 2007, Govt. of India, Ministry of Health and Family Welfare, New Delhi, India.
4. McCullough, N. B. 1949. Laboratory tests in the diagnosis of brucellosis. Amer. J. of Public Health. 39:866-869.
5. European Directorate for the Quality of Medicines and Healthcare. 2008. The European pharmacopoeia, 6th ed., Supp. 1, 4-1-2008, online. European Directorate for the Quality of Medicines and Healthcare, Council of Europe, 226 Avenue de Colmar BP907-, F-67029 Strasbourg Cedex 1, France.
6. Japanese Ministry of Health, Labour and Welfare. 2006. The Japanese pharmacopoeia, 15th ed., online. Japanese Ministry of Health, Labour and Welfare.
7. Forbes, Sahn and Weissfeld. 2007. Bailey & Scott's diagnostic microbiology, 12th ed. Mosby Inc., St. Louis, Mo.
8. Fredette and Forget. 1961. The sensitivity of several media to small inocula. Extract from a paper presented at the Canadian Society of Microbiology Annual Meeting, June 12-15. Kingston, Ontario, Canada.
9. Isenberg and Garcia (ed.). 2004 (update, 2007). Clinical microbiology procedures handbook, 2nd ed. American Society for Microbiology, Washington, D.C.
10. Federal Register. 1992. Fed. Regist. 27:113.26.
11. Curry, Joyce and McEwen. 1993. CTFA microbiology guidelines. The Cosmetic, Toiletry and Fragrance Association, Inc., Washington, D.C.
12. U.S. Food and Drug Administration. 2001. Bacteriological analytical manual, online. AOAC International, Gaithersburg, Md.
13. Wehr and Frank (ed.). 2004. Standard methods for the examination of dairy products, 17th ed. American Public Health Association, Washington, D.C.
14. Horwitz (ed.). 2007. Official methods of analysis of AOAC International, 18th ed., online. AOAC International, Gaithersburg, Md.
15. Downes and Ito (ed.). 2001. Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.
16. Health Canada. The compendium of analytical methods, online. Food Directorate, Health Products and food Branch, Health Canada, Ottawa, Ontario Canada.
17. U.S. Department of Agriculture. Microbiology laboratory guidebook, online. Food Safety and Inspection Service, USDA, Washington, D.C.
18. International Organization for Standardization. 1996. Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of *Listeria monocytogenes* - Part 1: Detection method. ISO 11290-1, 1st ed., 1996-12-15. ISO, Geneva, Switzerland.
19. Mashimo and Ellison, 1959, J. Bact., 78:636.
20. Fredette, Anger and Forget, 1961, Can. Med. Assoc. J., 84:164.





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Further Information

For further information please contact your local MICROMASTER Representative.






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