

TM 1091 - STARCH CASEIN AGAR

INTENDED USE

For detection of saccharolytic marine bacteria.

PRODUCT SUMMARY AND EXPLANATION

Starch casein agar is recommended for detection of saccharolytic marine bacteria and *Actinomycetes*. Widely distributed in nature, *Actinomycetes* constitute a considerable proportion of the population of soil, lakes and river muds. Traditionally *Actinomycetes* have been isolated from terrestrial sources, although the first report of mycelium forming *Actinomycetes* being recovered from marine sediments appeared several decades ago. Marine sediments are known potential sources for isolation of novel actinomycetes yielding new products and are recognized as source of novel antibiotic and anticancer agents. *Actinomyces* have an extensive impact on the environment by decomposing and transforming a wide variety of complex organic residues. *Actinomycetes* thus represent an important group of microbes found in environment and plays significant role not only in therapeutic applications but also on recycling of organic matter.

COMPOSITION

Ingredients	Gms / Ltr
Casein powder	1.000
Starch	10.000
Sea water	37.000
Agar	15.000

PRINCIPLE

This medium has starch as the complex carbohydrate source and Starch casein agar as nitrogen source. The salts of seawater provide complex ionic sources that makes the medium suitable for marine microbial flora and also buffers the medium.

INSTRUCTION FOR USE

- Dissolve 63.0 grams in purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C. Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Off-white to yellow coloured homogeneous free flowing powder.
Appearance of prepared medium	: Yellow coloured clear to slightly opalescent gel forms in petri plates.
pH (at 25°C)	: 7.2±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period



<i>Streptococcus limosus</i>	19778	50-100	Luxuriant	>=70%	35-37°C	18-48 Hours
<i>Streptomyces praecox</i>	3374	50-100	Luxuriant	>=70%	35-37°C	18-48 Hours
<i>Vibrio cholerae</i>	15748	50-100	Good-luxuriant	>=50 %	35-37°C	18-48 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.







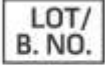


Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. CRC Handbook Series in Nutrition and Food, 1987 Section G: Diets, Culture Media, Food Supplements- Vol III. Culture Media for Microorganisms and plants by Miloslav Rechcigl, Jr.
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5. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
6. Srinivasan, M.C., Laxman R.S. and Deshpande M. (1991). Physiology and nutrition aspects of Actinomycetes- An overview. World journal of Microbial and Biotechnology 7, 171-184.
7. Wellington, E.M.H. Cross, T. (1983)- Taxonomy of antibiotic producing Actinomycetes and new approaches to their selective isolation. In: "Progress in industrial microbiology?" Bushell, M. E. (eds.). Elsevier, Amsterdam. pp. 36.
8. Weyland, H. (1969). Actinomycetes in North Sea and Atlantic Ocean sediments. Nature 223, 858.

 GMP Good Manufacturing Practices Certified	 Best Before	 QTY. Quantity	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 LOT/ B. NO. Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
Revision: 08 Nov., 2019

