

TM 129 - ISP MEDIUM NO. 4 (INORGANIC SALT STARCH AGAR)

INTENDED USE

For cultivation and characterization of Streptomyces as per International Streptomyces Project.

PRODUCT SUMMARY AND EXPLANATION

ISP Medium No. 4 is formulated based on the original formula of Shirling and Gottleib and is used for characterization of Streptomyces species.

COMPOSITION

Ingredients	Gms / Ltr	
Starch, soluble	10.000	
Dipotassium hydrogen phosphate	1.000	
Magnesium sulphate heptahydrate	1.000	
Sodium chloride	1.000	
Ammonium sulphate	2.000	
Calcium carbonate	2.000	
Ferrous sulphate heptahydrate	0.001	
Manganous chloride, heptahydrate	0.001	
Zinc sulphate heptahydrate	0.001	
Agar	20.000	

PRINCIPLE

Starch provides the energy source. Dipotassium hydrogen phosphate acts as buffering system while sodium chloride maintains the osmotic equilibrium of the medium. The salts provide essential electrolytes and minerals. Inoculate the plates by streaking, using 0.1 ml of the test culture enriched in ISP Medium No. 1.

INSTRUCTION FOR USE

- Dissolve 37 grams of dehydrated medium in 1000 ml purified/distilled water.
- Heat just to boiling.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Agitate constantly while pouring into sterile Petri plates to obtain a uniform suspension.

Note: Due to presence of calcium carbonate, the medium forms opalescent solution with white precipitate

QUALITY CONTROL SPECIFICATIONS

: Cream to yellow homogeneous free flowing powder. **Appearance of Powder** Appearance of prepared medium : Light amber coloured, 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
Streptomyces achromogenes	12767	50-100	Good-luxuriant	>=50 %	30-32°C	48-72 Hours
Streptomyces albus subsp albus	3004	50-100	Good-luxuriant	>=50 %	30-32°C	48-72 Hours
Streptomyces Iavendulae	8664	50-100	Good-luxuriant	>=50 %	30-32°C	48-72 Hours

PACKAGING:

In pack size of 100 gm and 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.

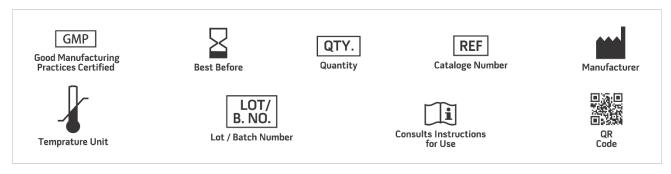
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

- 1. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
- 2. 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.
- 3. Salfinger Y., and Tortorello M.L. Fifth (Ed.), 2015, Compendium of Methods for the Microbiological Examination of Foods, American Public Health Association, Washington, D.C.
- 4. Sherling E.B. and Gotlieb., 1966, International J. Systemic Bacteriol., 16:3.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices. *For Lab Use Only













PRODUCT DATA SHEET

Revision: 08 Nov., 2019









