

TM 128 - ISP MEDIUM NO. 3

INTENDED USE

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

PRODUCT SUMMARY AND EXPLANATION

ISP Medium No. 3 is formulated based on the original formula of Shirling and Gottlieb. The medium is often referred to as Oat Meal Agar.

COMPOSITION

Ingredients	Gms / Ltr
Oat Meal	20.000
Agar	18.000
Trace salts,	-
Ferric sulphate heptahydrate	0.001
Manganese chloride tetrahydrate	0.001
Zinc sulphate heptahydrate	0.001

PRINCIPLE

Oatmeal provides the necessary nutrients for growth of *Streptomyces*. The trace salts solution that constitutes of ferric sulphate, manganese chloride and zinc sulphate provide the essential electrolytes and minerals. The concentration of these salts used per litre in the medium is 1.0 mg (concentration of 0.1 mg%). Inoculate ISP Medium No.1 with the test organisms and incubate at 30°C ± 0.2 for upto 96 hours. Inoculate the plates of ISP Medium No. 3 by streaking, using 0.1 ml of this test culture inoculum.

INSTRUCTION FOR USE

- Dissolve 38.0 grams in 1000 ml 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 and mix intermittently while pouring into sterile Petri plates for even distribution of oatmeal.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Cream to yellow homogeneous free flowing powder
Appearance of prepared medium	: Very light amber coloured opalescent gel with precipitation forms in Petri plates.
pH (at 25°C)	: 7.3±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
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<i>Streptomyces achromogenes</i>	12767	50-100	Good-luxuriant	>=50 %	35-37°C	48-72 Hours
<i>Streptomyces albus</i> subsp <i>albus</i>	3004	50-100	Good-luxuriant	>=50 %	35-37°C	48-72 Hours
<i>Streptomyces lavendulae</i>	8664	50-100	Good-luxuriant	>=50 %	35-37°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.

 Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 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