

**ISP MEDIUM NO. 3****TM 128**

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

**Composition**

Ingredients	Gms/Ltr.
Oat meal	20.00
Agar	18.00
Trace salt solution (ml)	1.00
Ferric sulphate heptahydrate	0.001
Manganese chloride tetrahydrate	0.001
Zinc sulphate heptahydrate	0.001

\* Dehydrated powder, hygroscopic in nature, store, in a dry place in tightly- sealed containers below 25°C and protect from direct Sunlight.

**Instructions for Use**

Dissolve 38.00gms in 1000ml of distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool the medium to 45 - 50°C and pour into sterile Petri plates.

**Appearance:** Light amber colour, opalescent gel

**pH (at 25°C):** 7.3 ± 0.2

**Principle**

**ISP MEDIUM NO. 3** is used for cultivation and characterization of *Streptomyces* as per International Streptomyces Project. This medium is also known as Oat meal agar. *Streptomyces* includes aerobic, Gram-positive, filamentous bacteria which produce well developed vegetative hyphae (between 0.5-2.0 µm in diameter) with branches. They form a complex substrate mycelium that aids in scavenging organic compounds from their substrates. Medium composed of trace salts solution that constitutes of Ferric sulphate; Manganese chloride and Zinc sulphate provide the essential electrolytes and minerals. The necessary nutrients are provided by Oat meal powder. Agar acts as solidifying agent.

**Interpretation**

Cultural characteristics observed after inoculating (10<sup>3</sup>CFU/ml), on incubation period of 48 - 72 hours at 35 - 37°C.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth
<i>Streptomyces lavendulae</i>	8664	10 <sup>3</sup>	Luxuriant
<i>Streptomyces albus</i>	3004	10 <sup>3</sup>	Luxuriant

**References**

1. Shirling E. B. and Gottlieb D., 1966, International J. of Systemic Bacteriol., Vol.16(3): 313.