

★ Storage

- Store at 2-8°C.
- Media should not be used if there are any signs of deterioration (shrinking, cracking, or discoloration) contamination, or if the expiration date has passed.
- The expiration data applies to the product in its intact packaging when stored as directed.

📄 Contents

- Product Manual
- Hayflick Medium Complete with Ampicillin

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★ Introduction

Mycoplasma, represents a group of minute bacteria devoid of cell walls belonging to class Mollicutes. These are responsible for causing serious contamination in cell and or tissue cultures used to generate compendial articles. They may also cause contamination of filtered sterilized Soybean Casein Digest Broth. Infection of cells in a culture can affect nearly every pathway of cell metabolism including alteration of the cells phenotypical characterization and normal growth. The presence of mycoplasma species does not always result in turbid growth in cultures or visible alteration of the cells.

Hayflick et al have reported complex medias for growth of Mycoplasmas. Testing of mycoplasmas is necessary to assure reliably pure biotech products and allied materials used to generate these products. Hayflick Medium Complete is recommended for general detection of Mycoplasmas in Pharmacopoeias for testing of products for Mycoplasma.

This medium contains Beef heart infusion broth containing beef heart infusion and peptone which provides nitrogen, vitamins, amino acids, and carbon sources. Sodium chloride maintains the osmotic balance. Many Mycoplasmas require serum for their good growth. Addition of Ampicillin suppress growth of unwanted flora. Added Horse serum provides growth factors including lipid components to Mycoplasma. DNA provides growth factors including lipid components to Mycoplasma. Yeast extract serves rich source of Nicotinamide-Adenine Dinucleotide (NAD) required by *M. synoviae*.

Mycoplasma species are either aerobic or facultative anaerobic but some are microaerophilic. Few are anaerobic saprophytic Mycoplasma which grow best at 22-35°C while pathogenic strains grow at 35°C. Tubes should be incubated in an atmosphere containing 5-10% carbon dioxide and examined after incubation of 48 hours but they should not be discarded as negative until after incubation for three weeks. *M. synoviae* is not able to grow on Hayflick broth medium because growth depends on NAD.

★ Formula

Ingredients	Percentage
Pancreatic Digest of Casein	0.7%
Sodium Chloride	0.5%
Yeast Extract	0.3%
Beef Heart Infusion	0.2%
Thalium Acetate	0.05%
Ampicillin	0.025%
DNA	0.02%
Horse Serum, Heat Inactivated	15%