



APRY Agar Base

M1291

APRY Agar Base is recommended for the detection and cultivation of acid resistant yeasts, *Zygosaccharomyces bailli* and *Zygosaccharomyces rouxii* in salads, sauces and dressings.

Composition**

Ingredients	Gms / Litre
Peptic digest of animal tissue	5.000
Casein enzymic hydrolysate	10.000
Yeast extract	2.500
Glucose	20.000
Fructose	30.000
Sodium chloride	25.000
Agar	15.000

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 107.5 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C and aseptically add 5 ml concentrated acetic acid and 1 ml of 10% Potassium Sorbate (FD124). Mix well and pour into sterile Petri plates.

Principle And Interpretation

Preservation of salads, salad dressing usually depends on the vinegar (acetic acid) or lemon juice present. The microflora causing salad dressings to spoil seems quite restricted. These spoilage organisms come from the ingredients, from manufacturing equipment or from air (1). Yeast *Zygosaccharomyces* has a long history of spoilage in the food industry (2). *Zygosaccharomyces* species is described as osmophilic, suggesting a habitat restricted to high solute environments. *Zygosaccharomyces* is extraordinarily resistant to common preservatives used in juices, concentrates and wine.

The medium contains casein enzymic hydrolysate, peptic digest of animal tissue and yeast extract which provide carbonaceous and nitrogenous compounds, vitamin B complex and other growth nutrients. Glucose and fructose provide an energy source. Addition of acetic acid and potassium sorbate allows the growth of acid resistant yeasts.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.5% Agar gel

Colour and Clarity of prepared medium

Light yellow coloured clear to slightly opalescent gel forms in Petri plates

Cultural Response

M1291: Cultural characteristics observed with added 5 ml conc. acetic acid and 1 ml of 10% Potassium sorbate (FD124) after an incubation at 30°C for 72 hours.

Organism

Growth

Cultural Response

Zygosaccharomyces bailli good-luxuriant

DSM 70492

Zygosaccharomyces rouxii good-luxuriant

ATCC 34890

Storage and Shelf Life

Store below 30°C in tightly closed container and prepared medium at 2 - 8°C. Use before expiry date on label

Reference

1. Vanderzant C. and Splittstoesser D. F., (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, Washington, D.C.
2. Thomas S. and Davenport R. R., 1985, Zygosaccharomyces bailii, A Profile of Characteristics and Spoilage Activities, Food Microbiology 2:157-169.

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