

## Yeast Extract-Peptone-Dextrose (YPD) Agar (i23201)

For the isolation and cultivation of *Saccharomyces rouxii* from chocolate syrup.

Industry: Molecular Biology

### Principles & Uses

YPD agar, also known as YEPD, is a comprehensive yeast culture medium, particularly beneficial for *Saccharomyces cerevisiae*. Composed of yeast extract, peptone, dextrose, and agar, its components offer essential nutrients, including vitamins, minerals, and amino acids, serving as carbon and nitrogen sources for yeast growth. This medium finds application in diverse contexts such as utilized to cultivate *S. cerevisiae* strains, exploring preservation methods for deep space biosensor missions, In vitro broth microdilution studies, specifically based on minimum inhibitory concentration (MIC), leverage YPD agar for yeast strains, and employed for cultivating *Zymoseptoria tritici* strains in virulence studies.

Yeasts exhibit robust growth on a minimal medium with glucose and salts, but the addition of protein and yeast cell extract hydrolysates in YPD agar accelerates growth, enabling cells to divide every 90 minutes during exponential growth. This medium is crucial in molecular microbiology procedures for maintaining and cultivating yeast.

### Composition (gr/L)

Peptone 20 g, Yeast Extract 10 g, Dextrose 20 g, Agar 15 g.

Final pH at 25°C 6.5 ± 0.2

### Preparation from dehydrated Powder

Suspend 65 g of the powder in 1 L of purified water. Mix thoroughly. Adjust pH to 6.5 ± 0.2. Autoclave at 121°C for 15 minutes.

### Quality Control

Dehydrated Appearance: Beige, free-flowing, homogeneous.

Prepared Appearance: Light to medium amber, clear to very slightly opalescent.

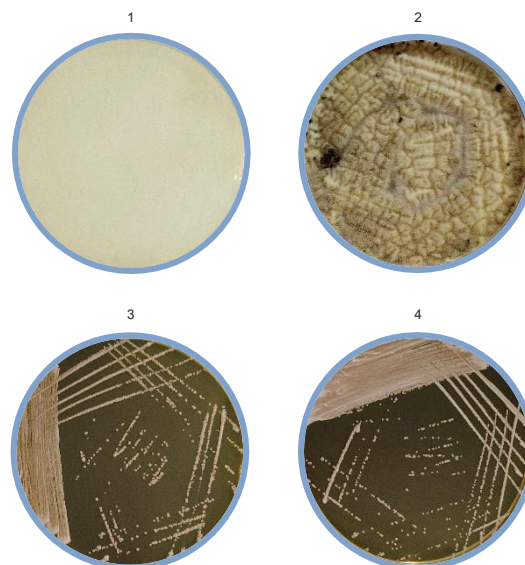
Reaction of 6.5% Solution at 25°C: pH 6.5 ± 0.2

### Cultural Response

The medium was inoculated with the organisms listed below. Cultural characteristics were observed after incubation at 25 ± 2°C for 42 - 48 hours. (up to 72 hours if necessary).

Organism (ATCC*)	Recovery
<i>Saccharomyces cerevisiae</i> (18790)	Good
<i>Saccharomyces cerevisiae</i> (9080)	Good

\*ATCC is a registered trade mark of the American Type Culture Collection.



1: Prepared Culture Media. 2: *Aspergillus niger*. 3: *Saccharomyces cerevisiae*. 4: *Candida albicans*.

The background of cultured plates has been darkened for better visibility of colonies.

### Storage

Keep the container at 15-30 °C. Store prepared medium at 2-8 °C.