

Yeast Extract Peptone Dextrose Broth (i23202)

YPD Broth is used for maintaining and propagating yeasts in molecular microbiology procedures.

Industry: Culture media for Molecular biology

Principles & Uses

YPD Broth, a highly nutritious liquid growth medium, is extensively employed for the cultivation and maintenance of various yeasts, including *Pichia pastoris* and the well-known *Saccharomyces cerevisiae*. This versatile medium serves multiple purposes, making it a staple in molecular biology for applications such as molecular cloning, protein expression, and as enrichment media.

Its carefully balanced composition includes peptone, providing essential nitrogenous nutrients, while yeast extract not only contributes to nitrogenous nutrients but also supplies vital Vitamin B Complex. The inclusion of protein and yeast cell extract hydrolysates expedites growth, allowing these microorganisms to divide approximately every 90 minutes during the exponential or log-phase growth. Dextrose plays a pivotal role by providing carbohydrates and an energy source, fostering the robust growth of *Saccharomyces cerevisiae*.

Composition (gr/L)

Peptone 20, Yeast Extract 10, Dextrose 20.

Final pH at 25°C 6.5 ± 0.2

Preparation from dehydrated Powder

Suspend 50 g of the powder in 1 Liter of purified water. Mix thoroughly. Solve the medium completely. 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 5.0% Solution at 25°C: pH 6.5 ± 0.2

Cultural Response

Cultural characteristics were observed after incubation at 35 ± 2°C for 42-48 hours.

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.



Saccharomyces cerevisiae in YPD broth causes turbidity.

Storage

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