

## Dichloran-Glycerol (DG18) Agar (i23056)

For the enumeration and isolation of xerophilic molds in dried and semidried foods as well as a general-purpose medium for counting yeast and molds in foodstuffs.

Industry: Dairy products / Food

## Principles & Uses

Dichloran Glycerol Agar (DG 18) is a selective medium designed for the enumeration and isolation of xerophilic molds, particularly from dried and semi-dried foods like fruits, spices, cereals, nuts, and meat or fish products. This medium effectively reduces bacterial growth by decreasing the water activity (aw) from approximately 0.99 to 0.95 using 18% glycerol. It employs chloramphenicol, an antibiotic, to inhibit contaminating bacteria, aiding in the isolation of pathogenic fungi. Dichloran, another component, restricts the rapid spread of mucoraceous fungi and helps control colony sizes, facilitating colony counts. Peptone provides essential nutrients like carbon, nitrogen, vitamins, and minerals, while dextrose serves as a carbohydrate source and energy provider. Potassium phosphate acts as a buffer system, and magnesium sulfate supplies divalent cations and sulfate. Overall, this medium is essential for distinguishing and quantifying xerophilic molds in various food products, ensuring their safety and quality. It's also suitable for isolating fungi from clinical samples.

## Composition (gr/L)

Peptone from Casein 5, Glucose 10, Potassium Dihydrogen Phosphate 1, Dichloran 0.002, Magnesium Sulfate 0.5, Chloramphenicol 0.1, Agar 15.

Final pH at 25°C 5.6 ± 0.2

## Preparation from dehydrated Powder

Suspend 31.6 g in 1 Liter of distilled water. Add 175 ml of glycerol to the medium, mix and autoclave at 121°C for 15 minutes. Cool to approx. 50 °C, mix well and pour into plates.

## Quality Control

Dehydrated Appearance: Homogeneous, free flowing, and beige.

Prepared Appearance: Prepared medium is trace to slightly hazy and beige.

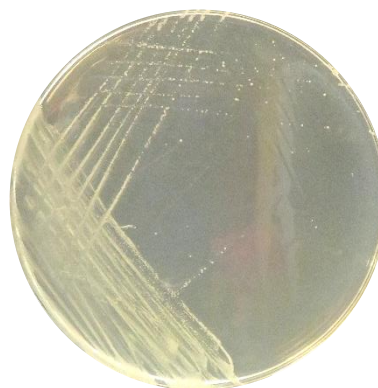
Reaction of 3.16% Solution at 25°C: pH 5.6 ± 0.2

## Cultural Response

Inoculate and incubate at 22-25°C for up to 5-7 days.

Organism (ATCC*)	Recovery
<i>Saccharomyces cerevisiae</i> (9763)	Good/Very good
<i>Mucor racemosus</i> (42647)	Fair/ Good
<i>Bacillus subtilis</i> (6633)	None
<i>Escherichia coli</i> (25922)	None

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



*Saccharomyces cerevisiae*. The background is darkened for better visibility of colonies.

## Storage

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