

WORT AGAR

CAT N°: 1316

For the cultivation and enumeration of yeasts

FORMULA IN g/l

Malt Extract	15.00	Ammonium Chloride	1.00
D-Maltose	12.75	Peptone	0.75
Dextrin	2.75	Bacteriological Agar	15.00
Dipotassium Phosphate	1.00		

Final pH 4.8 ± 0.2 at 25°C

PREPARATION

Suspend 48.28 grams of the medium in one liter of distilled water. Add 2.35 grams (1.9 ml) of Glycerol. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121°C for 15 minutes. Cool to 45-50°C, mix well and dispense into plates. Avoid any unnecessary heating or repeated remelting as this will alter the hydrolysis of the agar, preventing it from setting when cooled. The prepared medium should be stored at 8-15°C. The color is amber, slightly opalescent.

The dehydrated medium should be homogeneous, free-flowing and beige in color. If there are any physical changes, discard the medium.

USES

WORT AGAR BASE is commonly used for the detection and enumeration of fungi, particularly yeasts in butter, syrups and other materials, especially in the soft drinks industry.

It is particularly recommended for the cultivation and enumeration of yeasts. The medium duplicates the composition of natural wort and its acidity is optimal for many yeasts whilst inhibiting most bacteria.

Malt extract and Peptone provide nitrogen, vitamins, minerals and amino acids essential for growth. The medium is suitable for yeasts and molds as it contains a high concentration of Maltose and other carbohydrates as energy sources. Dextrin is a carbon source. Dipotassium phosphate is the buffer. Bacteriological agar is the solidifying agent. Glycerol reduces the water activity from 0.999 to 0.95, thereby reducing bacterial growth.

Inoculate and incubate at 30°C for 40 – 48 hours.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures, with Glycerol added, after incubation at a temperature of 30°C and observed after 40 - 48 hours.

Microorganisms	Growth
<i>Aspergillus brasiliensis</i> ATCC 16404	Good
<i>Saccharomyces cerevisiae</i> ATCC 9763	Good
<i>Saccharomyces uvarum</i> ATCC 9080	Good

BIBLIOGRAPHY

RAPP, M.: Indikatorzusätze zur Keimdifferenzierung auf Würze- und Malzextrakt-Agar – Milchwiss., 29; 341-344 (1974).

STORAGE

Once opened keep powdered medium closed to avoid hydration.

