

43479 MGYP Agar with Copper (Malt extract Glucose Yeast extract Peptone Agar, MYGP Agar, Copper Sulphate Agar) NutriSelect® plus

MGYP Agar with Copper is a selective medium recommended for isolation and cultivation of wild yeasts in the brewing industry.

Composition:

Ingredients	Grams/Litre
Yeast extract	3.0
Malt extract	3.0
Gelatin Peptone	5.0
Dextrose	10.0
Cupric sulphate	0.4
Agar	20.0

Final pH 6.2 +/- 0.2 at 25°C

Store dehydrated powder between 10-30°C in a tightly closed container and the prepared medium at 20-30°C. Protect from moisture and light by keeping container in a low humidity environment. Use before expiry date on the label.

Appearance(color): Faint Yellow to brownish yellow, Free flowing powder
 Gelling: Firm, comparable with 2.0% Agar gel.
 Color and Clarity: Brownish orange coloured opalescent to hazy gel with precipitate forms in Petri plates.

Directions:

Suspend 41.4 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. Mix well and pour into sterile Petri plates.

Principle and Interpretation:

Yeasts are unicellular fungi. Yeasts grow well in culture media containing dextrose. They are easily differentiated from most bacteria because of their relatively larger size and morphological features (2). MYGP Agar with copper is used for the isolation and cultivation of wild yeasts in the brewing industry. Copper in the medium inhibits the larger yeasts. Malt extract and yeast extract provide necessary nutrients to support the growth of yeasts. Dextrose (Glucose) is the suitable carbohydrate for the growth of yeasts (1). The acidic pH in the medium inhibits the growth of bacteria and favors the growth of yeasts. This medium is used for testing the quality of beers in Brewery industry.



Cultural characteristics observed after an incubation of 48 hours at 35-37°C.

Organisms (ATCC/WDCM)	Inoculum (CFU)	Growth	Recovery
<i>Lactobacillus fermentum</i> (9338/ -)	50-100	+++	≥50%
<i>Candida albicans</i> (10231/00054)	50-100	+++	≥50%
<i>Saccharomyces cerevisiae</i> (9763/00058)	50-100	+++	≥50%
<i>Aspergillus brasiliensis</i> (16404/00053)	50-100	+++	≥50%
<i>Escherichia coli</i> (25922/00013)	≥10 ³	-	0%

References:

1. American Society of Brewing Chemists. Report of subcommittee on Copper Media for Wild Yeast Detection.1992 Journal 50:153.
2. Pelczar M.J.Jr., Reid R.D., Chan E. C.S,1977, Microbiology, 4th ed, Tata, McGraw Hill Publishing company limited, New Delhi.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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