Y3127 Yeast Malt Agar (YM Agar)

Used for the isolation and cultivation of yeasts, molds and other aciduric microorganisms.

Composition:

Ingredients	Grams/Litre
Peptic digest of animal tissue	5.0
Yeast extract	3.0
Malt extract	3.0
Dextrose	10.0
Agar	20.0
Final pH 6.2 +/- 0.2 at 25°C	

Store prepared media below 8°C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25°C.

Appearance: Yellow colored, homogenous, free flowing powder.
Gelling: Firm
Color and Clarity: Light amber colored, very slightly opalescent gel

Directions:
Suspend 41 grams of Yeast Malt Agar in 1000 ml of distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 121°C for 15 minutes. For preparing a selective media acidify the media to pH 3.0-4.0 or add antibiotics. Do not heat the media after the addition of acid.

Principle and Interpretation:
Yeast Malt Agar/Broth is formulated according the formula described by Wickerham (1, 2) for isolation and cultivation of yeasts, moulds and other aciduric microorganisms.
Fungistatic materials such as sodium propionate and diphenyl are added to inhibit moulds and thus permits enumeration of yeasts from mixed population.
Wickerham suggested the use of Yeast Malt Broth as an enrichment medium for yeasts by adding a layer of sterile paraffin oil (about 1 cm) on the surface of inoculated broth. After growth occurs it can be streaked on YM Agar to obtain isolated colonies of fermentative species. To isolate fermentative as well as oxidative strains, acidified YM Broth is placed on a shaker for 1-2 days. The yeasts are favoured while sporulation of moulds is prevented, and yeast can be isolated by streaking on YM Agar.

Peptic digest of animal tissue and yeast extract provide nitrogenous compounds, vitamin B complex and other growth nutrients. As source of carbohydrates serves the malt extract.

Cultural characteristics after 40-72 hours at 25-30°C.

Organisms (ATCC/WDCM)	Inoculum (CFU)	Growth at pH 3.4	Recovery	Growth at pH 6.2
Aspergillus brasiliensis (16404/00053)	50-100	+++	≥50%	+++
Candida albicans (10231/00054)	50-100	+++	≥50%	+++
Saccharomyces cerevisiae (9763/00058)	50-100	+++	≥50%	+++
Lactobacillus rhamnosus (9595/-)	50-100	+	≤20%	+++
Lactobacillus leichmannii (4797/-)	50-100	+	≤20%	+++
Escherichia coli (25922/00013)	50-100	-	0%	+++

References:

1. Wickerham, J. Tropical Med. Hyg., 42, 176 (1939).
2. Wickerham, U.S. Dept. Agric. Tech. Bull. No. 1029 (1951)

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.