# TM 504 - YEAST DEXTROSE AGAR

## INTENDED USE
For cultivation of various heterotrophic microorganisms.

## PRODUCT SUMMARY AND EXPLANATION
Heterotrophic microorganisms are those that use organic matter synthesized by other organisms for energy and growth. The terminal electron acceptor in the electron transport chain is an organic compound instead of oxygen.
Heterotrophic organisms that feed exclusively on dead organic matters such as rotting wood are called as saprophytes. Heterotrophs that feed on living organic matter such as human tissues are commonly known as parasites. Fungal cells lack chlorophyll and photosynthesis is therefore impossible. Since they consume preformed organic matter, fungi are described as heterotrophic microorganisms. Together with bacteria, fungi decompose vast quantities of dead organic matter. Yeast Dextrose Agar is recommended for isolation and cultivation of various heterotrophic organisms.

## COMPOSITION

| Ingredients | Gms / Ltr |
|---|---|
| **Dextrose** | 10.000 |
| **Yeast extract** | 10.000 |
| **Agar** | 15.000 |

## PRINCIPLE
Yeast extract in the medium is the source of nitrogen and growth factors while dextrose provides an energy source for the growth of microorganisms.

## INSTRUCTION FOR USE
- Dissolve 35 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Mix well and pour into sterile Petri plates.

## QUALITY CONTROL SPECIFICATIONS
**Appearance of Powder** : Cream to yellow homogeneous free flowing powder.
**Appearance of prepared medium** : Light yellow coloured clear to slightly opalescent gel forms in Petri plates.
**pH (at 25°C)** : 7.0±0.2

## INTERPRETATION
Cultural characteristics observed after an incubation.

| Microorganism | ATCC | Inoculum (CFU/ml) | Growth (plain) | Recovery | Incubation Temperature | Incubation Period |
|---|---|---|---|---|---|---|
| *Aspergillus brasiliensis* | 16404 | 10-100 | Luxuriant | >=70% | 30°C | 24-48 Hours |

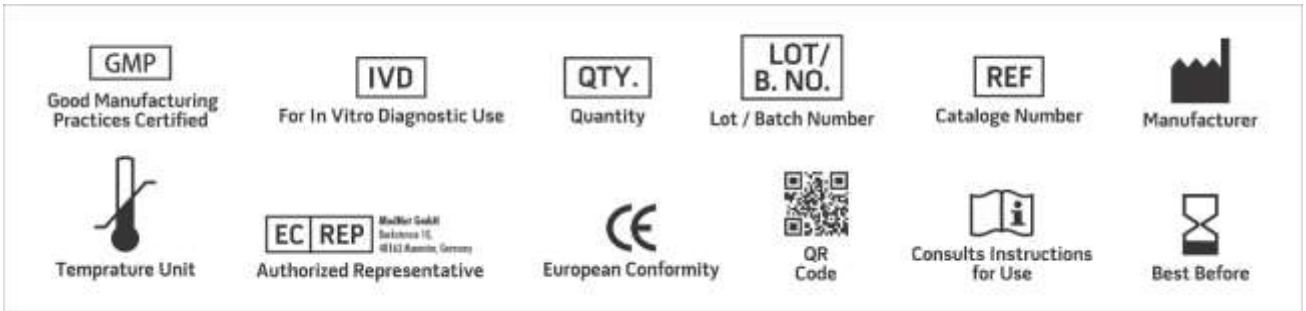
| | | | | | | |
|---|---|---|---|---|---|---|
| *Candida albicans* | 10231 | 10-100 | Luxuriant | >=70% | 30°C | 24-48 Hours |
| *Saccharomyces cerevisiae* | 9763 | 10-100 | Luxuriant | >=70% | 30°C | 24-48 Hours |

**PACKAGING:**
In pack size of 500 gm bottles.

**STORAGE**
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**REFERENCES**
1. Atlas R. M., Handbook of Microbiological Media. 3rd Edition, 2004, CRC Press.




**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
**Revision: 08 Nov., 2019**