

TM 586 - GLUCOSE YEAST PEPTONE AGAR

INTENDED USE

For isolation of yeasts from soil samples.

PRODUCT SUMMARY AND EXPLANATION

Yeasts are unicellular organisms that reproduce by budding. Their microscopic and morphological features usually appear similar for different genera and are not particularly helpful in their isolation in pure culture. Glucose Yeast Peptone Agar is formulated as described by Subba Rao with a slight modification in agar concentration for isolating yeasts from soil specimens. This is a highly nutritious medium, which may be used not only for isolating yeasts but also for isolating some fastidious microorganisms. Yeasts grow well on a minimal medium containing only dextrose and salts. The addition of protein and yeast cell extract hydrolysates allows faster growth so that during exponential or log-phase growth, doubling time of 90 minutes is observed.

COMPOSITION

| Ingredients | Gms / Ltr |
|--------------------|-----------|
| Peptone | 10.000 |
| Yeast extract | 5.000 |
| Dextrose (Glucose) | 20.000 |
| Agar | 15.000 |

PRINCIPLE

Peptone provides nitrogenous nutrients especially the amino acids and peptides and yeast extract supplies vitamin B complex. Dextrose is the readily available source of energy and a good carbohydrate source for yeasts.

INSTRUCTION FOR USE

- Dissolve 50.0 grams in 1000 ml purified / 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 to medium amber 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 | Recovery | Incubation Temperature | Incubation Period |
|---------------------------------|------|-------------------|-----------|----------|------------------------|-------------------|
| <i>Saccharomyces cerevisiae</i> | 9763 | 10-100 | Luxuriant | >=70% | 35-37°C | 18-24 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 25-30°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.

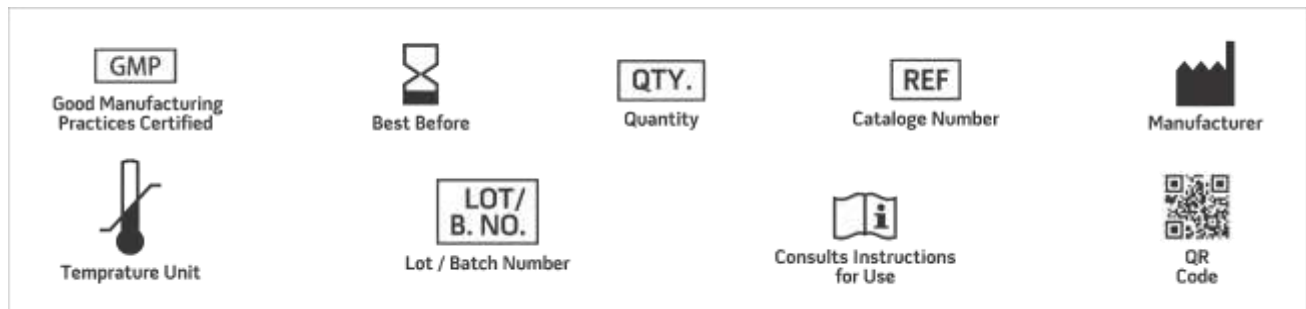
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Ausubel, Brent, Kingston, Moore, Seidman, Smith and Struhl, 1994, Current Protocols in Molecular Biology, Current Protocols, Brooklyn, N.Y.
2. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition
3. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock, D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.
4. Subba Rao N. S., 1977, Soil Microorganisms and Plant Growth, Oxford and IBH Publishing Co., New Delhi.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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