TM 400 - YEAST NITROGEN AGAR BASE (DOUBLE PACK)

INTENDED USE

For carbohydrate assimilation test in the characterization and identification of yeasts.

PRODUCT SUMMARY AND EXPLANATION

Yeast Nitrogen Base Agar (Twin Pack) is a modification of Yeast Nitrogen Base formulated by Wickerham and Burton. Yeast Nitrogen Base Agar is used for assessing carbohydrate utilizing ability of yeasts using the carbohydrate disc method.

The original auxanographic technique, described by Beijerinck, employs small amounts of dry carbohydrates placed on the surface of a heavily seeded synthetic agar medium. Growth around the carbohydrate indicates that the sugar is assimilated as a carbon source by the yeast. The pattern of utilized carbohydrates is an auxanogram. Filter paper disc impregnated with carbohydrate and used instead of dry carbohydrate is an alternative technique.

With added carbon source, the medium may also be used for susceptibility testing with antifungal drugs when defined medium is needed.

COMPOSITION

Ingredients	Gms / Ltr
Part I	
Agar	40.000
Part II	
Ammonium sulphate	5.000
L-Histidine hydrochloride	0.010
DL-Methionine	0.020
DL-Tryptophan	0.020
Biotin	0.000002
Calcium pantothenate	0.0004
Folic acid	0.000002
Inositol	0.002
Niacin	0.0004
p-Amino benzioc acid (PABA)	0.0002
Pyridoxine hydrochloride	0.0004
Riboflavin (Vitamin B2)	0.0002
Thiamine hydrochloride	0.0004
Boric acid	0.0005
Copper sulphate	0.00004
Potassium iodide	0.0001
Ferric chloride	0.0002
Manganese sulphate	0.0004
Sodium molybdate	0.0002

Zinc sulphate	0.0004
Monopotassium phosphate	1.000
Magnesium sulphate	0.500
Sodium chloride	0.100
Calcium chloride	0.100

PRINCIPLE

Histidine, methionine, and tryptophan provide necessary amino acids. Ammonium sulfate supplies a source of nitrogen. The medium also contains required vitamins, trace elements, and salts.

INSTRUCTION FOR USE

- Part I: Dissolve 40 grams in 900 ml distilled water. Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 12 minutes.
- Cool to 50°C and aseptically admix with sterile part B solution. Add 3 ml of sterile 5% tartaric acid for 100 ml of the mixture just before pouring the plates.
- Part II: For best results, Part B should be prepared in 10x strength.
- Dissolve 6.75 grams in 100 ml distilled water.
- Warm if necessary to dissolve the medium completely. Sterilize the medium by filtration. Keep refrigerated until use.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Part I: White to cream homogeneous free flowing powder.
Part II: White to cream homogeneous free flowing powder.
Appearance of prepared medium : Light yellow coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 5.4±0.2

INTERPRETATION

Cultural characteristics observed after an incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Growth with dextrose	Incubation Temperature	Incubation Period
Kloeckera apiculata	9774	10-100	None-poor	Good	25-30°C	6-7 days
Saccharomyces cerevisiae	9763	10-100	None-poor	Good	25-30°C	6-7 days
Saccharomyces uvarum	28098	10-100	None-poor	Good	25-30°C	6-7 days

PACKAGING:

In pack size of 100 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.

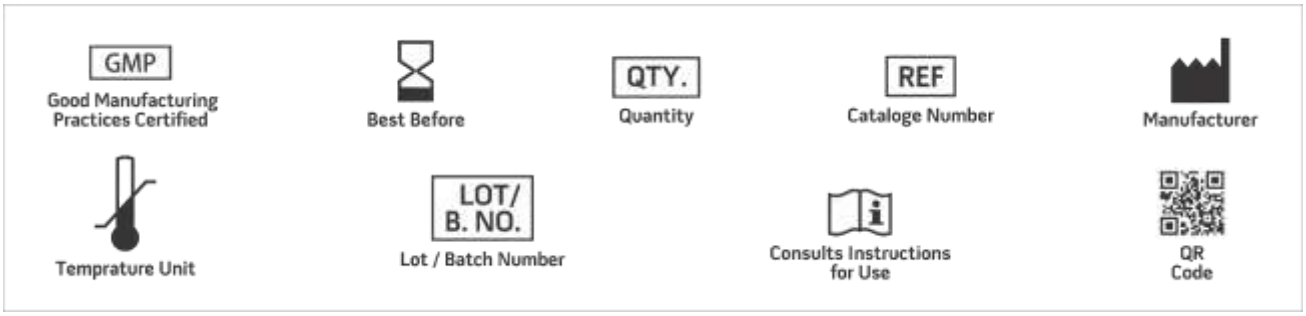
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

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

REFERENCES

1. Wickerham L. J., 1951, U.S. Dept. Agri. Tech. Bull No. 1029.
2. Wickerham L. J. and Burton K. A., 1948, J. Bacteriol., 56:363.
3. Lennette E. H., (Eds.), 1980, Manual of Clinical Microbiology, 3rd Ed., ASM, Washigton D. C.
4. Padhye A. A., 1981, Diagnostic Procedures for Bacterial, Mycotic and Parasitic Infections, 6th Ed., APHA, Washington, D.C.
5. Beijerinck M. W., 1989, Arch. Neerl. Sc. Exact. Nat. 23: 367.



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

***For Lab Use Only**

Revision: 19 July 2024