



Yeast Nitrogen Base

M139

Intended Use:

Recommended for classification of yeasts on the basis of their ability to assimilate carbon compounds.

Composition**

| Ingredients | Gms / Litre |
|-----------------------------|-------------|
| 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 benzoic 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 |
| Final pH (at 25°C) | 5.4±0.2 |

**Formula adjusted, standardized to suit performance parameters

Directions

For best results, the medium should be prepared in 10X strength. Suspend 6.75 grams in 100 ml purified / distilled water. Add 5 grams of dextrose or an equivalent amount of other carbohydrate. Warm if necessary to dissolve the medium completely. Sterilize by filtration. Keep refrigerated until use. Final medium is made by pipetting 0.5 ml into 4.5 ml of sterile purified / distilled water.

Principle And Interpretation

Yeast Nitrogen Base is formulated as per Wickerham (1) for investigations of yeasts for their different abilities in carbon assimilation. With added carbon source it may also be used for susceptibility testing with antifungal drugs when defined liquid medium is needed (2, 3). Inoculate media tubes with very light inoculum and incubate at 25°C for 6-7 days and again for 20-24 days. Draw lines with India ink on a paper and hold the paper against the Yeast Nitrogen Base tubes. If lines are not seen or appear diffused through the culture, the test is considered positive and if lines are distinguishable, test is negative.

Type of specimen

Pure isolates

Specimen Collection and Handling:

For pure isolates samples follow appropriate techniques for handling specimens as per established guidelines (1,2). After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

1. Use light inoculum **Y**einoculations!

Performance and Evaluation

Performance of the medium is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Colour and Clarity of prepared medium

Colourless (at 10X concentration colour of medium is pale yellow) clear solution without any precipitate.

Reaction

Reaction of 0.67% w/v aqueous solution at 25°C. pH : 5.4±0.2

pH

5.20-5.60

Cultural Response

Cultural characteristics observed after an incubation at 25-30°C for 6-7 days (longer if necessary for upto 24 days).

| Organism | Growth (Plain) | Growth w/ dextrose |
|--|----------------|--------------------|
| <i>KloECKera apiculata</i> ATCC 9774 | none-poor | good |
| <i>Saccharomyces cerevisiae</i> ATCC 9763 (00058*) | none-poor | good |
| <i>Saccharomyces uvarum</i> ATCC 28098 | none-poor | good |

Key : *Corresponding WDCM numbers.

Storage and Shelf life

Storage and shelf life information is provided for reference only. The product is stable for 12 months from the date of manufacture when stored in a cool, dry place. For detailed information, please refer to the product label and the Certificate of Analysis (COA).

Disposal

The product should be disposed of as per local regulations. Do not pour down the drain. Contact your local waste management authority for disposal instructions.

Reference

1. Wickerham, 1951, U.S. Dept. Agri. Tech. Bull No. 1029.
2. Lennette E. H., Balows, Hausler and Truant, (Eds.), 1980, Manual of Clinical Microbiology, 3rd Ed., ASM, Washington D.C.
3. Padhye A. A., 1981, Diagnostic Procedures for Bacterial, Mycotic and Parasitic Infections, 6th Ed., APHA, Washington, D.C.

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