51483 Yeast Nitrogen Base

For the classification of yeast based on carbon assimilation and for susceptibility testing of fungi.

Composition:

Ingredients	Grams/Litre
Ammonium sulfate	5.0
L-Histidine HCl	0.01
DL-Methionine	0.02
DL-Tryptophan	0.02
Biotin	0.000002
Calcium pantothenate	0.0004
Folic acid	0.000002
Niacin	0.0004
p-Aminobenzoic acid	0.0002
Pyridoxine HCl	0.0004
Riboflavin	0.0002
Thiamine HCl	0.0004
Inositol	0.002
Boric acid	0.0005
Copper sulfate	0.00004
Potassium iodide	0.0001
Ferric chloride	0.0002
Manganese sulfate	0.0004
Sodium molybdate	0.0002
Zinc sulfate	0.0004
Potassium phosphate monobasic	1.0
Magnesium sulfate	0.5
Sodium chloride	0.1
Calcium chloride	0.1
Final pH 5.4 +/- 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: White to faintly yellow coloured, homogeneous, free flowing powder.
Color and Clarity: Colorless to faintly yellow coloured, clear solution.

Directions:
Prepare a 10x stock solution by dissolving 6.7 g and a suitable carbohydrate source in 100 ml water (warm). Filtersterilize. Prepare the final medium by dilution in sterile 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.

Cultural characteristics after 6 – 7 days at 25 - 30°C.

Organisms (ATCC)	Growth	Growth with dextrose
Kloeckera apiculata (9774)	-/+	+++
Saccharomyces cerevisiae (9763)	-/+	+++
Saccharomyces uvarum (28098)	-/+	+++

References:

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.

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.