Technical Information

Yeast Nitrogen Base

Product Code: DM 1139

Application: - Yeast Nitrogen Base is 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

Principle & Interpretation

Yeast Nitrogen Base is form devised by 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.

Methodology

For best results, the medium should be prepared in 10X strength. Suspend 6.75 grams of powder media in 100 ml distilled water. Add 5 grams of dextrose or an equivalent amount of other carbohydrate. Shake well and heat 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 distilled water.

Quality Control

Physical 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 Range 5.2-5.6

Cultural Response/Characteristics

DM 1139: Cultural characteristics observed after an incubation at 25-30°C for 6-7 days (longer if necessary for unto 24 days).

Organism	Growth (Plain)	Growth w/ dextrose
Kloeckera apiculata ATCC 9774	none-poor	good
Saccharomyces cerevisiae ATCC 9763	none-poor	good
Saccharomyces uvarum ATCC 28098	none-poor	good

Storage and Shelf Life

Dried media: Store below 30°C in tightly closed container and use before expiry date as mentioned on the label.
Prepared Media: 2-8^0 in sealable plastic bags for 2-5 days.

Further Reading

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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