

Yeast Extract Agar (NCM0069)

Intended Use

Yeast Extract Agar is used for the enumeration of microorganisms in potable and freshwater samples and is not intended for use in the diagnosis of disease or other conditions in humans.

Description

A nutrient agar corresponding to the standard formulation for the plate count of micro-organisms in water and dairy products. This medium is also useful for teaching and demonstration purposes using non-fastidious organisms.

Typical Formulation

Yeast Extract 3.0 g/L
Peptone 5.0 g/L
Agar 15.0 g/L

Final pH: 7.2 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precaution

Refer to SDS

Preparation

1. Suspend 23 grams of the medium in one liter of purified water.
2. Heat with frequent agitation and boil for one minute to completely dissolve the medium.
3. Autoclave at 121°C for 15 minutes.
4. Cool to 45-50°C.

To prepare Yeastrel Milk Agar add 10mL of fresh milk before autoclaving.

Test Procedure

Pour Plate Method

1. Prepare Yeast Extract Agar.
2. Add 1 mL of the sample into a sterile Petri dish.
3. Pour 15 – 20 mL of the molten agar, at 45°C, into the Petri dish containing the sample.
4. Gently swirl Petri dish to mix evenly.
5. Incubate at 29-31°C for the appropriate incubation time.

Quality Control Specifications

Dehydrated Appearance: Powder is homogeneous, free flowing, and light to medium beige.

Prepared Appearance: Prepared medium is clear and pale yellow with no precipitate.

Expected Cultural Response: cultural responses on Yeast Extract Agar were incubated aerobically at 29 - 31°C. The cultures were examined for growth at 48-72 hours.

Microorganism	Approx. Inoculum (CFU)	Recovery
<i>Bacillus subtilis</i> ATCC® 6633	50-200	>70%
<i>Escherichia coli</i> ATCC® 8739	50-200	>70%
<i>Escherichia coli</i> ATCC® 25922	50-200	>70%
<i>Staphylococcus aureus</i> ATCC® 25923	50-200	>70%

The organisms listed are the minimum that should be used for quality control testing.



Technical Specification Sheet



Results

Count colonies per plate. The results are counted as quantity/mL.

Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedure

Due to varying nutritional requirements, some strains may be encountered that grow poorly or fail to grow on this medium.

Storage

Store dehydrated culture media at 2 – 30°C away from direct sunlight. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References

1. Environment Agency: The Microbiology of Drinking Water (2002). Methods for the Examination of Water and Associated Materials.
2. British Standard 4285: Methods of Microbiological Examination for Dairy Purposes.

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