

Nutrient Agar with 1% Peptone

Intended Use

Nutrient Agar with 1% Peptone is a general-purpose medium used for the examination of water and dairy products.

Summary

Nutrient Agar with 1% Peptone is a basic culture medium used to subculture organisms for maintenance purpose or to check the purity of sub-cultures from isolated plates prior to biochemical or serological testing. It is also used for the cultivation and enumeration of organisms in water, sewage, faeces and other materials which are not particularly fastidious.

Principle

Peptone and beef extract provide water-soluble substances including carbohydrates, vitamins, organic nitrogen compounds and salts. Sodium chloride maintains the osmotic balance.

Formula*

| Ingredients | g/L |
|--------------------|-----------|
| Peptone | 10.0 |
| Sodium Chloride | 5.0 |
| Beef Extract | 5.0 |
| Agar | 15.0 |
| Final pH (at 25°C) | 7.4 ± 0.2 |

*Adjusted to suit performance parameters.

Storage and Stability

Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen

Food and Dairy samples; Water samples

Specimen Collection and Handling

Ensure that all samples are properly labelled. Follow appropriate techniques for handling samples as per established guidelines. Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure. The samples must be stored and tested within the permissible time duration. After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions

1. Suspend 35.00 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Boil with frequent agitation to dissolve the powder completely.
4. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control

Dehydrated Appearance: Cream to yellow coloured, homogenous, free flowing powder.

Prepared Appearance: Light amber coloured, clear to slightly opalescent gel forms in petridishes.

Growth Promotion Test: Growth promotion is carried out in accordance with the harmonized method of USP/EP/JP/IP and growth is observed after an incubation at 30°C-35°C for 18 to 24 hours.

Growth Promoting Properties: The test results observed are within the specified temperature and shortest period of time specified in the test, inoculating ≤ 100 cfu of appropriate microorganism at 30° C-35°C for 18 hours.

| Organism (ATCC) | Growth |
|--|---------------|
| <i>Escherichia coli</i> (25922) | Good |
| <i>Klebsiella pneumoniae</i> subsp. <i>pneumoniae</i> (10031) | Good |
| <i>Klebsiella aerogenes</i> (13048) | Good |
| <i>Salmonella enterica</i> subsp. <i>enterica</i> serovar <i>Typhimurium</i> (14028) | Good |

Note: For good growth - Growth obtained on test media should not differ by a factor greater than 2 from calculated value for a standardized inoculum.

Interpretation of Results

1. Examine plates for growth.
2. Growth from tubes inoculated with pure cultures can be used for biochemical and serological testing.

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

| Cat No. | Product description | Pack Size |
|----------------|----------------------------|------------------|
| 201140070100 | Dehydrated Culture Media | 100 g |
| 201140070500 | Dehydrated Culture Media | 500 g |

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.
