Wort Agar

Cat. 1316

For the cultivation and enumeration of yeasts.

Practical information

Aplications	Categories
Selective enumeration	Yeasts
Detection	Yeasts and molds

Industry: Water / Food

Principles and uses

Wort Agar is commonly used for the detection and enumeration of fungi and yeasts.

It is particularly recommended for the cultivation and enumeration of yeasts in butter, syrups and other materials, especially in the soft drinks industry. The medium duplicates the composition of natural wort and its acidity is optimal for many yeasts whilst inhibiting most bacteria.

Malt extract and peptone provide nitrogen, vitamins, minerals and amino acids essential for growth. The medium is suitable for yeasts and molds as it contains a high concentration of Maltose and other carbohydrates as energy sources. Dextrin is a carbon source. Dipotassium phosphate is the buffer. Bacteriological agar is the solidifying agent. Glycerol reduces the water activity from 0,999 to 0,95, thereby reducing bacterial growth.

Formula in g/L

Ammonium chloride	1	Bacteriological agar	15
Dipotassium phosphate	1	Malt extract	15
Peptone	0,75	Dextrin	2,75
D-Maltose	12,75		

Preparation

Suspend 48,25 grams of the medium in one liter of distilled water. Add 2,35 grams (1,9 ml) of Glycerol. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121 ºC for 15 minutes. Cool to 45-50 ºC, mix well and dispense into plates. Avoid any unnecessary heating or repeated remelting as this will alter the hydrolysis of the agar, preventing it from setting when cooled.

Instructions for use

- Prepared de sample and make decimal dilutions.
- Transfer 1 ml of the suitable dilutions to a Petri dish.
- Add 15 ml of melted and cooled to 45-50 ºC medium and mix gently with the inoculum.
- Incubate the plates at a temperature of 30 ºC for 40-48 hours.

Quality control

Solubility	Appareance	Color of the dehydrated medium	Color of the prepared medium	Final pH (25ºC)
w/o rests	Fine powder	Beige	Amber, slightly opalescent	4,8 ± 0,2

Microbiological test

Incubation conditions: (30 ºC / 40-48 h)

Microrganisms	Specification
Aspergillus brasiliensis ATCC 16404	Good growth

Sacharomyces cerevisiae ATCC 9080	Good growth
Saccharomyces cerevisiae ATCC 9763	Good growth

Storage

Temp. Min.:2 ºC
Temp. Max.:25 ºC

Bibliography

RAPP, M.: Indikatorzusätze zur Keimdifferenzierung auf Würze- und Malzextrakt-Agar – Milchwiss., 29; 341-344 (1974).