

Technical Information

MMA Growth Agar

Product Code: G1060

MMA Growth Agar is a minimal defined media for the growth of *Schizosaccharomyces pombe*.

Composition**

Ingredients	Grams/Litre
Glucose	10.00
Potassium dihydrogen phosphate	1.00
Magnesium sulphate, 7H ₂ O	0.50
Sodium chloride	0.10
Calcium chloride, 2H ₂ O	0.10
Ammonium sulphate	5.00
Boric acid	500 mcg
Copper sulphate, 5H ₂ O	40 mcg
Potassium iodide	100 mcg
Ferric chloride, 6H ₂ O	200 mcg
Manganese sulphate, H ₂ O	400 mcg
Sodium molybdate, 2H ₂ O	200 mcg
Zinc sulphate, 7H ₂ O	400 mcg
Biotin	10 mcg
Calcium pantothenate	0.001
Nicotinic acid	0.010
Myoinositol	0.010
Agar	15.00

** Formula adjusted, standardized to suit performance parameters

Methodology

Suspend 31.72 grams in 1000 ml distilled water. Sterilize by autoclaving at 10 lbs pressure (115oC) for 20 minutes. Mix well and dispense as desired.

Principle and Interpretation

MMA Growth Agar is a minimal defined media for the growth of *Schizosaccharomyces pombe*. Yeasts are unicellular eukaryotes and extensively studied model organism in molecular genetics. The fission yeast *Schizosaccharomyces pombe* is a model eukaryote which is very useful in studies of cell cycle and chromosome dynamics. These cells maintain their shape by growing through the cell tips and divide by medial fission to produce two daughter cells of equal sizes that makes them a powerful tool in cell cycle research. It was first developed as an experimental model in the 1950's for studying genetics (1, 2) and for studying the cell cycle (3, 4). MMA Growth Agar is used for the maintenance and propagation of *S. pombe* in various molecular microbiology procedures. MMA Growth Agar functions as a complete defined medium for fission yeast growth and contains salts, vitamins, trace elements and other supplements. It contains glucose as the carbon source.

Quality control

Appearance of Powder :

Light yellow coloured, homogeneous, free flowing powder.

Gelling :

Firm, comparable with 1.5% Agar gel.

Colour and Clarity :

Light yellow coloured, clear to slightly opalescent gel forms in Petri plates.

Cultural Response :

Cultural characteristics observed after an incubation at 25-30°C for 18 - 48 hours.

Organisms (ATCC)

Schizosaccharomyces pombe

Growth

good-luxuriant

Storage and Shelf Life

- Store below 30°C and the prepared medium at 2 - 8°C.
- Use before expiry date on the label.

Reference

1. Leupold U. (1950) CR Trav Lab Carlsberg Ser Physiol 24:381-480.
2. Leupold U. (1993) The origins of Schizosaccharomyces pombe genetics. In: Hall MN, Linder P. eds. The early Days of Yeast Genetics. New York. Cold Spring Harbor Laboratory Press. 125-128.
3. Mitchinson JM. (1975) Exp Cell Res 13:244-262.
4. Mitchinson JM. (1990) Bioessays 4:189-191.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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