

Technical Information

YES Growth Medium

Product Code: G1047

YES Growth Medium is used for the vegetative growth of *Schizosaccharomyces pombe*.

Composition

Ingredients	Grams/Litre
Yeast extract	5.00
Dextrose	30.00
Adenine	0.05
Histidine	0.05
Leucine	0.05
Lysine	0.05
Uracil	0.05

** Formula adjusted, standardized to suit performance parameters

Methodology

Suspend 35.25 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle and Interpretation

Schizosaccharomyces pombe, also called "fission yeast", is a species of yeast. It is used as a model organism in molecular and cell biology. It is possibly the eukaryote with the shortest genome. 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).

YES (yeast extract with supplements) Growth Medium is used for the vegetative growth of *Schizosaccharomyces pombe*. YES functions as a complete medium for fission yeast growth and it contains yeast extract, glucose and other supplements which include adenine, histidine, leucine, uracil and lysine hydrochloride. Dextrose serves as the carbon source. The generation time of a wild-type strain of fission yeast is about 2 hours in YES (5). Since the medium contains 30 grams per litre dextrose, the medium should be properly dissolved in water before autoclaving to avoid caramelization of the sugar.

Quality Control

Appearance of Powder :

Cream to yellow coloured, homogeneous, free flowing powder

Colour and Clarity :

Light yellow coloured, clear solution without any precipitate

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.

References

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.
5. Forsburg SL, Rhind N. 2006. Basic methods for fission yeast. Yeast 23: 173-183

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