

# Product Name : MCM (Mushroom Complete Medium) Agar

Medium for the cultivation of higher fungi.

## TYPICAL FORMULA (G/L)

Glucose.....20.0  
Peptone.....2.0  
Yeast Extract .....2.0  
Monopotassium Phosphate.....0.46  
Dipotassium Phosphate.....1.0  
Magnesium Sulphate.....0.5  
Agar.....20.0  
Final pH = 6.0 ± 0.2 at 25°C.

## DIRECTIONS

Suspend 45.96 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize in autoclave at 121°C for 15 minutes. Dispense into petri dishes.

## DESCRIPTION

MCM (Mushroom Complete Medium) Agar which have usually been used for the cultivation of higher fungi, were employed to select a suitable medium for the exo-biopolymer synthesis and mycelial growth.

## TECHNIQUE

All stock cultures were maintained on a PDA (Potato Dextrose Agar) (MB-P1102) slant and subcultured every 1 month, and the slants were incubated at 25°C for 7 days and then stored at 4°C. All strains were initially grown on PDA (Potato Dextrose Agar) (MB-P1102) in a petri dish, and then transferred into the MCM (Mushroom Complete Medium) Agar by punching out 5 mm of the agar plate culture with a selfdesigned cutter. A shake flask culture was carried out in a 250 mL flask containing 50 mL of the medium and incubated at 25°C for 7 days.

## QUALITY CONTROL

### Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: beige.

### Prepared medium

Appearance: slightly opalescent.

Color: amber.

Incubation conditions: 25 ± 1°C / 7 days.

Microorganism	ATCC	Growth
<i>Cordyceps militaris</i>	9787	good
<i>Ganoderma lucidum</i>	64251	good
<i>Pleurotus ostreatus</i>	38538	good

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## STORAGE

The powder is very hygroscopic: store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-6°C.

## REFERENCES

- 1.S.W. Kim. (2002). Letters in Applied Microbiology. 34, 56-61.
- 2.. Chihara. (1970). Cancer Research 30, 2776-2781.
3. Tabata, K. (1981). Ultrasonic degradation of schizophyllan, an antitumor polysaccharide produced by Schizophyllum commune FRIES. Carbohydrate Research. 89, 121-135.
4. Tseng, T.S. (1984). Study on Ganoderma lucidum 1. Liquid culture and chemical composition of mycelium. Botanical Bulletin of Academia. 25, 149-157.
5. Yang, F.C. and Liao, C.B. (1998). The influence of environmental conditions on polysaccharide formation by Ganoderma lucidum in submerged cultures. Process Biochemistry. 33, 547-553.

## PACKAGING

Cat. No : MB-M0698 MCM (Mushroom Complete Medium) Agar	500 G
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