

## 84088 Sabouraud 4% Glucose Agar (Sabouraud 4% Dextrose Agar)

An acidic medium for the cultivation of pathogenic, and non-pathogenic fungi, especially dermatophytes.

### Composition:

| Ingredients                   | Grams/Litre |
|-------------------------------|-------------|
| Special peptone               | 10.0        |
| D(+)-Glucose                  | 40.0        |
| Agar                          | 15.0        |
| Final pH 5.6 +/- 0.2 at 25°C. |             |

Store prepared media below 8°C, protected from direct light. Store dehydrated powder, in a dry place, in tightly-sealed containers at 2-25°C.

### Directions:

Dissolve 65 g in 1 litre distilled water. Autoclave at 121°C for 15 minutes. Do NOT overheat. Mix well before pouring into sterile petri plates.

### Principle and Interpretation:

Special peptone acts as a source of carbon, nitrogen, minerals, vitamins and other essential growth nutrients. D(+)-Glucose is the fermentable carbohydrate. The relatively high carbohydrate concentration (4 %) enhances fungal growth. The pH of 5.6 inhibits bacterial growth. This effect can be enhanced by adjusting the pH to extreme values (approx. 3.5 or 10.0). If fungi have to be isolated from heavily contaminated material, selective inhibitory agents should be added. The medium without any inhibitors must also be inoculated.

To suppress the bacteria, add 500 mg/l cycloheximide (01811), 12 mg/l penicillin (13752) and 40 mg/l streptomycin (85880) (4), or substitute 40 mg/l chloramphenicol for the penicillin and streptomycin (5). These media inhibit bacteria as well as some pathogenic fungi like *Cryptococcus neoformans*, *Aspergillus*, *Nocardia* and certain *Candida* species.

For the detection of yeasts, 40 mg/l neomycin (72133) and 12 mg/l penicillin (13752) (6), or 80 mg/l colistin (27655), 100 mg/l novobiocin (74675) and 300 mg/l cycloheximide (01811) (7), is recommended.

For the isolation of *Candida albicans* add 100 mg/l triphenyltetrazolium chloride (93140) (8).

Cultural characteristics after 1-3 weeks at 25-30°C

| Organisms (ATCC)                          | Growth |
|-------------------------------------------|--------|
| <i>Trichophyton mentagrophytes</i> (9533) | +++    |
| <i>Trichophyton rubrum</i> (28191)        | ++     |
| <i>Microsporum gallinae</i> (121088)      | +++    |
| <i>Candida albicans</i> (10231)           | +++    |
| <i>Aspergillus niger</i> (16404)          | +++    |
| <i>Penicillium commune</i> (10428)        | +++    |



## References:

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## Precautions and Disclaimer

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