BD™ Kimmig Fungal Agar

INTENDED USE

BD Kimmig Fungal Agar is used for the isolation and cultivation of fungi from clinical specimens.

PRINCIPLES AND EXPLANATION OF THE PROCEDURE

Microbiological method.

BD Kimmig Fungal Agar is a nonselective medium which allows the development of the characteristic morphological properties of mycelial fungi.[1,2] It may also be used for the cultivation of yeasts. When used as an isolation medium, contaminated specimens should also be streaked on a more selective medium (see **Test Procedure**).

Peptone, glucose, and glycerol provide nutrients and energy sources. The relatively low pH is favored by fungi. However, bacteria are only very slightly inhibited on this medium.

REAGENTS

BD Kimmig Fungal Agar

Formula* Per Liter Purified Water

Peptone	15.0 g
Sodium Chloride	1.0
Glucose	19.0
Glycerol	5.0 ml
Agar	15.0 g

pH 6.5 +/- 0.2

*Adjusted and/or supplemented as required to meet performance criteria.

PRECAUTIONS

IVD . For professional use only.

Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

Consult **GENERAL INSTRUCTIONS FOR USE** document for aseptic handling procedures, biohazards, and disposal of used product.

STORAGE AND SHELF LIFE

On receipt, store plates in the dark at 2 to 8° C, in their original sleeve wrapping until just prior to use. Avoid freezing and overheating. The plates may be inoculated up to the expiration date (see package label) and incubated for the recommended incubation times.

Plates from opened stacks of 10 plates can be used for one week when stored in a clean area at 2 to 8° C.

USER QUALITY CONTROL

Inoculate representative samples with the following strains (for details, see **GENERAL INSTRUCTIONS FOR USE** document). Incubate plates aerobically at 25 to 30° C for the times indicated below.

Strains	**Growth Results**
**Candida albicans* ATCC™ 10231	Creme coloured, matt colonies
**Saccharomyces cerevisiae* DSM 1333	Creme to white colonies
***Trichophyton mentagrophytes* ATCC 9533	White colonies
** *Aspergillus niger* ATCC 16404	Black colonies, white border
Uninoculated	Colorless to light amber

Incubation: * 42 to 48 hours; ** 5 to 7 days

PROCEDURE

Materials Provided

BD Kimmig Fungal Agar (90 mm **Stacker™** plates). Microbiologically controlled.

Materials Not Provided

Ancillary culture media, reagents and laboratory equipment as required.

Specimen Types

This is a nonselective medium that may be used for all specimens suspected to contain fungi (see also **PERFORMANCE CHARACTERISTICS AND LIMITATIONS OF THE PROCEDURE**).. It may also be used for fungal cultures to determine their morphological features (see **Test Procedure**).

Test Procedure

Inoculate the specimen directly after its receipt in the laboratory. Streak for isolation.

- If the specimen consists of skin scrapings, hairs, or nails, place the material in the center of the media surface. If possible, larger particles should be slightly pressed onto the surface by means of sterile forceps to provide contact with the medium.
- For isolation of fungi causing systemic mycoses, two sets of media should be inoculated, with one set incubated at 25 to 30°C and a duplicate at 35 to 37° C.

Since **BD Kimmig Fungal Agar** is not selective, always include a plate of **BD Sabouraud Glucose Agar with Gentamicin and Chloramphenicol**. **BD Mycosel™ Agar** or **BD Dermatophyte Agar** should be included to detect fungi from dermatological infections. If yeasts are suspected, the clinical specimen might also be plated onto **BD CHROMagar™ Candida**. Eventually, a nonselective medium such as Columbia Agar with 5% Sheep Blood must also be inoculated to provide an indication of bacterial pathogens present in the specimen.

Incubate at the appropriate temperature. For filamentous (mycelial) fungi, 25 to 30° C are appropriate. Incubate for up to three weeks if dermatacious fungi are expected. In this case, seal the plates with adhesive tape to prevent shrinkage of the medium. If used for the detection of yeasts (e.g., *Candida* species), incubate for 48 hours at 30 to 35° C.

If this medium is used for the development of the typical morphological features of fungi that have been isolated before, pick a typical colony from the isolation medium and streak on **BD Kimmig Fungal Agar**. Mycelial fungi may adhere firmly to the isolation medium. If this is the case, use a sterile scalpel to remove portions of the agar containing a typical colony and place the agar portion onto **BD Kimmig Fungal Agar** while exerting gentle pressure. Incubate as appropriate for the isolate.

Results

After the incubation, inspect the plates for the typical appearance of filamentous fungi. Consult the references for further identification of the isolates.[2-4]
Since the number of fungi is large, no details on their appearance are given here. Consult the references.[2-4]
Biochemical tests and microscopical and serological procedures should be performed to confirm findings. [4]

PERFORMANCE CHARACTERISTICS AND LIMITATIONS OF THE PROCEDURE

This medium is used for the isolation of fungi from clinical specimens and for the development of their characteristic morphological features.[1,2]
If the specimen is contaminated with bacteria, overgrowth by these organisms may result on **BD Kimmig Fungal Agar** (see **Test Procedure**), especially after an extended incubation period. If bacterial contamination of the specimens is suspected, media with a higher selectivity (see **Test Procedure**) must also be used for the culture of the specimen.
Due to the wide growth temperature range of fungi, it may be necessary to inoculate several plates of the same medium and incubate them at different temperatures. Consult the **Test Procedure** section and appropriate references.[3,4]

REFERENCES

1. Kimmig, J. and H. Rieth. 1953. Antimycotica in Experiment und Klinik. Arzneimittelforsch. 3: 267-276.
2. Rieth, H. 1969. Dermatophyten, Hefen und Schimmelpilze auf Kimmig Agar. Mycosen 12: 73-74.
3. Larone, D.H. 1995: Medically important fungi - a guide to identification. Third edition. ASM Press, Washington.
4. Fromtling, R.A. (section ed.). 2003. Mycology. *In:* Murray, P. R., E. J. Baron, J.H. Jorgensen, M. A. Pfaller, and R. H. Yolken (ed.). Manual of clinical microbiology, 8th ed. American Society for Microbiology, Washington, D.C.

PACKAGING/AVAILABILITY

BD Kimmig Fungal Agar

Cat. No. 254413 Ready-to-use Plated Media, cpu 20

FURTHER INFORMATION

For further information please contact your local BD representative.

Becton Dickinson GmbH
Tullastrasse 8 – 12
D-69126 Heidelberg/Germany
Phone: +49-62 21-30 50 Fax: +49-62 21-30 52 16
Reception_Germany@europe.bd.com

http://www.bd.com
http://www.bd.com/europe/regulatory/