

## KB006 HiCandida™ Identification Kit

### Introduction

KB006 is a standardized test system that can be used for identification and differentiation of *Candida* species. It can also be used for validating known laboratory strains. The complete list of organisms that can be identified with this system is given in the identification index provided with the kit.

### Principle

Each KB006 kit is a standardized colorimetric identification system utilizing twelve conventional biochemical tests. The tests are based on the principle of pH change and substrate utilization. On incubation, organisms undergo metabolic changes which are indicated by a spontaneous colour change in the media.

### Kit contents

1. Each kit contains sufficient material to perform 10 tests.
2. 10 kits of KB006.
3. Technical product insert.
4. Result Interpretation Chart and Result Entry Datasheet.
5. Identification Index.

### Instructions for use

#### 1. Preparation of inoculum :

- KB006 cannot be used directly on clinical specimens. The organisms to be identified have to be first isolated and purified. Only pure cultures should be used.
- Isolate the organism to be identified on a common medium like Sabouraud Dextrose Agar (M063) or Potato dextrose Agar(M096). Prepare the inoculum by picking 2-4 well isolated colonies and make a homogenous suspension in 2-3ml sterile saline. The density of the suspension should be adjusted to 0.5OD at 620nm.
- Alternatively, inoculum can be prepared by inoculating a single isolated colony in 5ml Potato Dextrose Broth(M403) and incubating at 22°C -25°C for 6-8-hours till the inoculum turbidity is 0.5OD at 620nm.

#### Note

- Erroneous false negative results may be obtained if the inoculum turbidity is less than 0.5 OD.
- Results are more prominent if an enriched culture is used instead of suspension.

### Inoculation of the kit

- Open the kit aseptically. Peel off the sealing foil.
- Inoculate each well with 50 µl of the above inoculum by surface inoculation method.
- Alternatively, the kit can also be inoculated by stabbing each individual well with a loopful of inoculum

### Incubation

- Temperature of incubation: 22.5°C ± 2.5°C.
- Duration of incubation: 24-48 hours.

### Interpretation of results

Interpret results as per the standards given in the identification index.

Tests	Urease	Melibiose	Lactose	Maltose	Sucrose	Galactose	Cellobiose	Inositol	Xylose	Dulcitol	Raffinose	Trehalose
<i>Candida albicans</i>	-	-	-	+	+	+	-	-	+	-	-	+
<i>Candida catenulata</i>	-	-	-	+	-	+	-	-	+	-	-	-
<i>C. dubliniensis</i>	-	-	-	+	+	+	-	-	+	-	-	+
<i>C. famata</i>	-	+	+	+	+weak	+	+	-	+	+	+	+weak
<i>C. glabrata</i>	-	-	-	+	-	-	-	-	-	-	-	+
<i>C. guilliermondii</i>	-	+	-	+	+	+	+	-	+	+	+	+
<i>C. kefyr</i>	-	-	+	-	+	+	+	-	+	-	+	-
<i>C. krusei</i>	+	-	-	-	-	-	-	-	-	-	-	-
<i>C. lambica</i>	-	-	-	-	-	-	-	-	+	-	-	-
<i>C. lipolytica</i>	+	-	-	-	-	-	-	-	-	-	-	-
<i>C. lusitanae</i>	-	-	-	+	+	+	+	-	+	-	-	+
<i>C. parapsilosis</i>	-	-	-	+	+	-	-	-	+	-	-	-
<i>C. pintolopesii</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>C. rugosa</i>	-	-	-	-	-	+	-	-	+	-	-	-
<i>C. tropicalis</i>	-	-	-	+	+	+	+	-	+	-	-	+
<i>C. zeylanoides</i>	-	-	-	-	-	-	-*	-	-	-	-	+
<i>C. pseudotropicalis</i>	-	-	+	-	+	+	+	-	+	Nd	+	-
<i>C. stellatoidea</i>	-	-	-	+	-	+	-	-	+	Nd	-	+

Note : Based on % strains showing reactions following symbols have been assigned from laboratory results and standard references.  
 + = Positive reaction (more than 90 %)      - = Negative reaction  
 \* = Strain variation.      Nd = Not detected

**Result Interpretation Chart**

Well No.	Test	Principle	Original Colour of the medium	Positive Reaction	Negative reaction
1	Urease	Detects Urease enzyme	Orangish yellow	Pink	Orangish yellow
2	Melibiose	Melibiose utilization	Pinkish Red / Red	Yellow	Red / Pink
3	Lactose	Lactose utilization	Pinkish Red / Red	Yellow	Red / Pink
4	Maltose	Maltose utilization	Pinkish Red / Red	Yellow	Red / Pink
5	Sucrose	Sucrose utilization	Pinkish Red / Red	Yellow	Red / Pink
6	Galactose	Galactose utilization	Pinkish Red / Red	Yellow	Red / Pink
7	Cellobiose	Cellobiose utilization	Pinkish Red / Red	Yellow	Red / Pink
8	Inositol	Inositol utilization	Pinkish Red / Red	Yellow	Red / Pink
9	Xylose	Xylose utilization	Pinkish Red / Red	Yellow	Red / Pink
10	Dulcitol	Dulcitol utilization	Pinkish Red / Red	Yellow	Red / Pink
11	Raffinose	Raffinose utilization	Pinkish Red / Red	Yellow	Red / Pink
12	Trehalose	Trehalose utilization	Pinkish Red / Red	Yellow	Red / Pink

**Important points to be taken into consideration while interpreting the result**

1. In case of carbohydrate fermentation test some fungi may show weak reaction after 48 hours. In this case record the reaction as  $\pm$  and incubate further for 24 hours. Orange colour after 72 hours of incubation should be interpreted as a negative reaction.
2. At times organisms give conflicting result because of mutation or the media used for isolation, cultivation and maintenance.
3. The identification index has been compiled from standard references and results of tests carried out in the laboratory.

**Precautions**

- Clinical samples and fungal cultures should be considered potentially pathogenic and handled accordingly.
- Aseptic conditions should be maintained during inoculation and handling of the kits.

**Disposal of used material**

After use, kits and the instruments used for isolation and inoculation (pipettes, loops etc.) must be disinfected using a suitable disinfectant and then discarded by incineration or autoclaving in a disposal bag.

**Storage and Shelf-life**

Store at 2-8°C. Shelf-life is 12 months.

**Disclaimer :**

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