

CODE BOOK

Книга кодов



for / для MIKROLATEST®

CANDIDA-Screen

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Introduction

The codebook for CANDIDA-Screen is designed to identify bacteria using the MIKRO-LA-TEST CANDIDA-Screen test kit. The identification, ie interpretation of the result, can be done in three ways:

1. **manually** - by comparing the result with the data in the differentiation table
2. **using an identification program** (eg ErbaExpert)
3. **using this codebook**

All of the mentioned identification methods are based on the data of the identification matrix (frequency matrix, etc.), ie table containing taxa, tests and percentages of positive reactions of particular tests for each taxon. The taxon may be:

- genus - *Morganella* sp.
- species - *Morganella morganii*
- subspecies - *Morganella morganii* ssp. *morganii*

The codebook contains the identification results using the CANDIDA-Screen set ordered according to the value of the so-called profile code. Sorting results by the value of the profile code allows for easy and fast search. The identification quality evaluation for each profile code is based on the calculation of the probability of the result from the identification matrix data; the evaluation is detailed below.

Creating a profile code

For easier identification, it is advisable to convert the obtained results of each test (+/-) into a numerical profile (octal code). Tests are first divided into groups:

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|--|
| URE | SUC | MLT | LAC | GAL | TRE | CEL | PRO | |
| 1 | | | 2 | | | 3 | | |

The test groups are created in accordance with the sequence of tests in the strip.

The last group is incomplete and contains the remaining strip tests.

In each created group, there are assigned values 1, 2, and 4 to the particular tests according to the following scheme:

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|--|
| URE | SUC | MLT | LAC | GAL | TRE | CEL | PRO | |
| 1 | 2 | 4 | 1 | 2 | 4 | 1 | 2 | |

When creating a profile code for a specific result, proceed as follows:

- positive tests are assigned 1, 2 or 4 values
- negative tests are always assigned a zero value
- the values assigned to the tests are added in each test group
- the resulting group of numbers represents the **profile code**

| | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|--|
| URE + | SUC - | MLT - | LAC + | GAL + | TRE + | CEL + | PRO - | |
| 1 | 0 | 0 | 1 | 2 | 4 | 1 | 0 | |
| 1 | | | 7 | | | 1 | | |

In this example, a profile **171** was created.

The results are organized in the codebook according to the value of the profile code in ascending order.

Using the codebook

The following information is provided for each profile code in the codebook:

- Profile code.
- Identification score and T-index values. They are listed for each taxon:

Identification score – the taxon with the highest value is ranked first; the identification score indicates the probability of occurrence of a given result for that taxon, related to the probability of occurrence of the result for all other taxa.

Identification score ≥ 99 ... the strain is excellently distinguished

Identification score ≥ 95 ... the strain is very good distinguished

Identification score ≥ 90 ... the strain is distinguished

Identification score < 90 ... the strain is not sufficiently distinguished

T-index – an indication of the extent to which the result corresponds to the most typical result for that taxon; an entirely typical result corresponds to a T-index value equal to 1. The value may lie in the range from 0 to 1 and is inversely proportional to the number of atypical tests.

T-index $\geq 0,75$... typical strain

T-index $\geq 0,50$... less typical strain

T-index $\geq 0,25$... atypical strain

T-index $< 0,25$... completely atypical strain

- **List of atypical characters (tests)** - the list of all atypical characters (listed below) is valid only for the first taxon; the percentage of positive reactions is given for every atypical test.
- **List of additional tests** – if taxa are insufficiently differentiated, additional tests allow for more accurate identification. Additional tests show percentages of positive reactions.

If the profile code in the diagnostic list is not listed, it is a very atypical result, or it is a taxon that is not included in the identification matrix.

List of taxa used to create a codebook

Candida albicans
Candida glabrata
Candida guilliermondii
Candida kefyr
Candida krusei
Candida lipolytica
Candida lusitaniae
Candida parapsilosis
Candida tropicalis
Cryptococcus neoformans
Geotrichum sp.
Saccharomyces cerevisiae
Trichosporon sp.

List of tests used to create a codebook

Basic set of tests

URE urease
SUC acid from saccharose
MLT acid from maltose
LAC acid from lactose
GAL acid from galactose
TRE acid from trehalose
CEL acid from cellobiose
PRO L-prolinaminopeptidase

Additional (distinguishing) tests

ATS arthrospores production
GET germ tubes production
HYP hyphes production
PSH pseudohyphes production

Введение

- Кодовая книга для КАНДИДА-Скрин предназначена для идентификации грибов с использованием тестового набора MIKRO-LA-TEST КАНДИДА-Скрин.
Идентификация, т.е. интерпретация результата, может быть выполнена тремя способами:
 - 1. вручную - путем сравнения результата с данными в таблице дифференцирования
 - 2. с использованием программы идентификации (например, ErbaExpert)
 - 3. используя эту кодовую книгу
- Все упомянутые методы идентификации основаны на данных матрицы идентификации (частотной матрицы), то есть таблицы, содержащей таксоны, тесты и проценты положительных реакций конкретных тестов для каждого таксона. Таксоном может быть:
 - род - *Morganella sp.*
 - вид - *Morganella morganii*
 - подвид - *Morganella morganii ssp. Morganii*

Кодовая книга содержит результаты идентификации с использованием набора КАНДИДА-Скрин, упорядоченного в соответствии со значением так называемых кодов профиля. Сортировка результатов по значению кода профиля позволяет легко и быстро искать. Оценка качества идентификации для каждого кода профиля основана на вычислении вероятности результата из данных матрицы идентификации; оценка приведена ниже.

Создание кода профиля:

Для более точной идентификации целесообразно преобразовать полученные результаты каждого теста (+/-) в числовой профиль (восьмеричный код). Тесты сначала делятся на группы

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|--|
| URE | SUC | MLT | LAC | GAL | TRE | CEL | PRO | |
| 1 | | | 2 | | | 3 | | |

Теперь получаем 5 групп по три и в одной группе два теста. В каждой группе только каждому положительному тесту даются числовые значения 1, 2 и 4:

первый тест тройки - 1

второй тест тройки - 2

третий тест тройки - 4

всем отрицательным результатам дается значение 0

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|--|
| URE | SUC | MLT | LAC | GAL | TRE | CEL | PRO | |
| 1 | 2 | 4 | 1 | 2 | 4 | 1 | 2 | |

При создании кода профиля для конкретного результата необходимо выполнить следующие действия:

- положительным испытаниям присваиваются 1, 2 или 4 значения
- отрицательным испытаниям всегда присваивается нулевое значение
- полученные значения суммируются в каждой тестовой группе
- итоговая группа чисел представляет собой **код профиля**

| | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|--|
| URE + | SUC - | MLT - | LAC + | GAL + | TRE + | CEL + | PRO - | |
| 1 | 0 | 0 | 1 | 2 | 4 | 1 | 0 | |
| 1 | | | 7 | | | 1 | | |

В этом примере был создан профиль **171**.

Результаты располагаются в кодовой книге в соответствии со значением кода профиля в порядке возрастания.

ИСПОЛЬЗОВАНИЕ ИНДЕКСА ЧИСЛОВЫХ ПРОФИЛЕЙ

Найдите числовой профиль в индексе; профили систематизированы в регистре в порядке возрастания величин чисел.

Профиль сопровождается следующей информацией:

- значения 2-х индексов для каждого таксона:
 - а) процент идентификации (% id) – показатель, оценивающий насколько близко полученный профиль соответствует идентифицированному таксону по сравнению с другими таксонами,ключенными в базу данных;
таксоны систематизированы в соответствии с их величинами % id.
 - б) Т индекс (Tin) – показывает насколько близко профиль соответствует большинству типичных реакций данного таксона. Его величина варьирует от 0 до 1 и обратно пропорциональна количеству атипичных тестов.
- перечень атипичных тестов (T. against) для первого из перечисленных таксонов с указанием процента положительных реакций, заложенных в базу данных;
- перечень дополнительных тестов – если таксоны не достаточно хорошо идентифицируются с помощью КАНДИДА-Скрин; дополнительные тесты приводятся с процентом положительных реакций, заложенных в базу данных;
- пояснения в случае, если качество идентификации выходит за рамки вышеперечисленных показателей;
- оценка качества идентификации, исходя из значений %id и T-index:

Процент идентификации

%id >= 99 – таксон отличается от других таксонов

%id >= 95 - таксон очень хорошо отличается от других таксонов

%id >= 90 - таксон удовлетворительно отличается от других таксонов

%id < 90 - таксон неудовлетворительно отличается от других таксонов

Т-индекс

Т-индекс >= 0.75- типичный штамм

Т-индекс >= 0.50- менее типичный штамм

Т-индекс >= 0.25- атипичный штамм

Т-индекс < 0.25- полностью атипичный штамм

| Т-индекс | %id | качество идентификации |
|-------------|-------------|--|
| ≥ 0.75 | ≥ 0.99 | ОТЛИЧНАЯ ИДЕНТИФИКАЦИЯ |
| ≥ 0.50 | ≥ 0.95 | ОЧЕНЬ ХОРОШАЯ ИДЕНТИФИКАЦИЯ |
| ≥ 0.25 | ≥ 0.90 | ХОРОШАЯ ИДЕНТИФИКАЦИЯ для первого таксона |
| ≥ 0 | ≥ 0.90 | ПРИЕМЛИМАЯ ИДЕНТИФИКАЦИЯ для первого таксона |
| | < 0.90 | НИЗКОЕ РАЗЛИЧИЕ <ul style="list-style-type: none">- выбранные таксоны относятся к разным родам ИДЕНТИФИКАЦИЯ ДО РОДА- выбраны более одного таксона того же рода ИДЕНТИФИКАЦИЯ ДО ВИДА- выбраны более чем один вид и подвид в одном образце |

В случае, если профиль не найден в индексе профилей, то возможно:

- профиль является совсем атипичным и частота его встречаемости очень низкая
- профиль относится к таксону, который не включен в базу данных.

СПИСОК ТАКСОНОВ, ИСПОЛЬЗУЕМЫХ ДЛЯ СОЗДАНИЯ КОДОВОЙ КНИГИ

Candida albicans
Candida glabrata
Candida guilliermondii
Candida kefyr
Candida krusei
Candida lipolytica
Candida lusitaniae
Candida parapsilosis
Candida tropicalis
Cryptococcus neoformans
Geotrichum sp.
Saccharomyces cerevisiae
Trichosporon sp.

Список тестов, используемых для создания кода профиля

Базовый набор тестов

URE Уреаза
SUC Сахароза
MLT Мальтоза
LAC Лактоза
GAL Галактоза
TRE Трегалоза
CEL Целлобиоза
PRO Пролин

Дополнительные (отличительные) тесты

ATS образование артроспор
GET образование ростовых трубок
HYP образование сумок
PSH образование псевдогифов

| Code Taxon | ID score | T index | tests against | Differentiation tests | Code |
|--|----------|---------|------------------|-----------------------|------------|
| 000 Low discrimination | | | | PSH HYP | 000 |
| <i>Candida krusei</i> | 55.08 | 1.00 | 99 | 2 | |
| <i>Geotrichum sp.</i> | 38.91 | 1.00 | 1 | 99 | |
| <i>Trichosporon sp.</i> | 5.19 | 0.72 | 1 | 99 | |
| 001 Low discrimination | | | | PSH HYP | 001 |
| <i>Candida krusei</i> | 49.69 | 0.41 | CEL 1 | 99 2 | |
| <i>Geotrichum sp.</i> | 35.10 | 0.41 | | 1 99 | |
| <i>Trichosporon sp.</i> | 14.32 | 0.27 | | 1 99 | |
| 002 Low discrimination | | | | PSH HYP | 002 |
| <i>Candida lipolytica</i> | 43.10 | 0.82 | 99 | 1 | |
| <i>Candida krusei</i> | 30.52 | 0.76 | 99 | 2 | |
| <i>Geotrichum sp.</i> | 23.48 | 0.77 | 1 | 99 | |
| 010 Low discrimination | | | | PSH HYP | 010 |
| <i>Candida krusei</i> | 49.83 | 0.41 | LAC 1 | 99 2 | |
| <i>Geotrichum sp.</i> | 35.20 | 0.41 | | 1 99 | |
| <i>Trichosporon sp.</i> | 14.36 | 0.27 | | 1 99 | |
| 020 Low discrimination | | | | PSH HYP | 020 |
| <i>Geotrichum sp.</i> | 81.21 | 0.89 | 1 | 99 | |
| <i>Candida krusei</i> | 17.12 | 0.65 | 99 | 2 | |
| <i>Trichosporon sp.</i> | 0.78 | 0.27 | 1 | 99 | |
| 021 Low discrimination | | | | HYP PSH | 021 |
| <i>Geotrichum sp.</i> | 61.83 | 0.30 | CEL 1 | 99 1 | |
| <i>Candida kefyr</i> | 19.62 | 0.19 | | 1 98 | |
| <i>Candida krusei</i> | 13.04 | 0.06 | | 2 99 | |
| 022 Low discrimination | | | | PSH HYP | 022 |
| <i>Geotrichum sp.</i> | 54.53 | 0.66 | PRO 14 | 1 99 | |
| <i>Candida lipolytica</i> | 28.86 | 0.55 | | 99 1 | |
| <i>Candida krusei</i> | 10.55 | 0.40 | | 99 2 | |
| 030 Low discrimination | | | | HYP PSH | 030 |
| <i>Candida kefyr</i> | 55.25 | 0.39 | SUC 99 | 1 98 | |
| <i>Geotrichum sp.</i> | 36.08 | 0.30 | | 99 1 | |
| <i>Candida krusei</i> | 7.61 | 0.06 | | 2 99 | |
| 031 Good identification | | | | | 031 |
| <i>Candida kefyr</i> | 100.0 | 0.41 | SUC 99 | | |
| 040 Very good identification | | | | PSH HYP | 040 |
| <i>Candida glabrata</i> | 98.33 | 1.00 | 1 | 1 | |
| <i>Candida krusei</i> | 0.83 | 0.41 | 99 | 2 | |
| <i>Geotrichum sp.</i> | 0.59 | 0.41 | 1 | 99 | |
| 041 Good identification | | | | PSH HYP | 041 |
| <i>Candida glabrata</i> | 97.87 | 0.41 | CEL 1 | 1 1 | |
| <i>Candida krusei</i> | 0.83 | -.18 | | 99 2 | |

| Code | | ID score | T index | tests against | Differentiation tests | Code |
|--------------------------------|---------------------------------|----------|---------|---------------|-----------------------|------------|
| Taxon | | | | | | |
| <i>Trichosporon sp.</i> | | 0.73 | -.18 | | 1 99 | |
| 042 | Low discrimination | | | | | 042 |
| | | | | | PSH | |
| <i>Candida glabrata</i> | | 69.80 | 0.41 | PRO 1 | 1 | |
| <i>Candida lipolytica</i> | | 12.29 | 0.23 | | 99 | |
| <i>Candida krusei</i> | | 8.70 | 0.17 | | 99 | |
| 050 | Good identification | | | | | 050 |
| | | | | | PSH HYP | |
| <i>Candida glabrata</i> | | 97.87 | 0.41 | LAC 1 | 1 1 | |
| <i>Candida krusei</i> | | 0.83 | -.18 | | 99 2 | |
| <i>Trichosporon sp.</i> | | 0.73 | -.18 | | 1 99 | |
| 060 | Low discrimination | | | | | 060 |
| | | | | | PSH HYP | |
| <i>Candida glabrata</i> | | 70.71 | 0.41 | GAL 1 | 1 1 | |
| <i>Geotrichum sp.</i> | | 17.86 | 0.30 | | 1 99 | |
| <i>Candida krusei</i> | | 3.77 | 0.06 | | 99 2 | |
| 062 | Low discrimination | | | | | 062 |
| | | | | | HYP PSH | |
| <i>Candida guilliermondii</i> | | 80.60 | 0.41 | SUC 99 | 1 99 | |
| <i>Geotrichum sp.</i> | | 7.97 | 0.07 | | 99 1 | |
| <i>Candida lipolytica</i> | | 4.22 | -.04 | | 1 99 | |
| 100 | Low discrimination | | | | | 100 |
| | | | | | HYP | |
| <i>Trichosporon sp.</i> | | 88.49 | 1.00 | | 99 | |
| <i>Cryptococcus neoformans</i> | | 5.67 | 0.72 | | 1 | |
| <i>Geotrichum sp.</i> | | 3.88 | 0.62 | | 99 | |
| 101 | Low discrimination | | | | | 101 |
| | | | | | HYP | |
| <i>Trichosporon sp.</i> | | 79.90 | 0.55 | CEL 3 | 99 | |
| <i>Cryptococcus neoformans</i> | | 18.38 | 0.44 | | 1 | |
| <i>Geotrichum sp.</i> | | 1.15 | 0.03 | | 99 | |
| 102 | Low discrimination | | | | | 102 |
| | | | | | HYP PSH | |
| <i>Candida lipolytica</i> | | 86.24 | 1.00 | | 1 99 | |
| <i>Trichosporon sp.</i> | | 12.93 | 0.76 | | 99 1 | |
| <i>Geotrichum sp.</i> | | 0.62 | 0.39 | | 99 1 | |
| 103 | Low discrimination | | | | | 103 |
| | | | | | HYP PSH | |
| <i>Candida lipolytica</i> | | 67.87 | 0.41 | CEL 1 | 1 99 | |
| <i>Trichosporon sp.</i> | | 31.16 | 0.31 | | 99 1 | |
| <i>Geotrichum sp.</i> | | 0.49 | -.20 | | 99 1 | |
| 110 | Very good identification | | | | | 110 |
| | | | | | HYP | |
| <i>Trichosporon sp.</i> | | 95.93 | 0.55 | LAC 3 | 99 | |
| <i>Cryptococcus neoformans</i> | | 2.01 | 0.13 | | 1 | |
| <i>Geotrichum sp.</i> | | 1.38 | 0.03 | | 99 | |
| 112 | Low discrimination | | | | | 112 |
| | | | | | HYP PSH | |
| <i>Candida lipolytica</i> | | 68.20 | 0.41 | LAC 1 | 1 99 | |
| <i>Trichosporon sp.</i> | | 31.31 | 0.31 | | 99 1 | |
| <i>Geotrichum sp.</i> | | 0.49 | -.20 | | 99 1 | |
| 120 | Low discrimination | | | | | 120 |

| Code Taxon | ID score | T index | tests against | Differentiation tests | Code |
|---------------------------------|----------------------------------|------------|------------------|-----------------------|------------|
| | | | | HYP | |
| <i>Cryptococcus neoformans</i> | 78.78 | 0.86 | | 1 | |
| <i>Trichosporon sp.</i> | 12.69 | 0.55 | | 99 | |
| <i>Geotrichum sp.</i> | 7.72 | 0.51 | | 99 | |
| 121 | Good identification | | | | 121 |
| | | | | HYP | |
| <i>Cryptococcus neoformans</i> | 94.90 | 0.58 | CEL 10 | 1 | |
| <i>Trichosporon sp.</i> | 4.25 | 0.11 | | 99 | |
| <i>Geotrichum sp.</i> | 0.85 | -.08 | | 99 | |
| 122 | Good identification | | | | 122 |
| | | | | HYP PSH | |
| <i>Candida lipolytica</i> | 92.67 | 0.73 | GAL 11 | 1 99 | |
| <i>Trichosporon sp.</i> | 3.48 | 0.31 | | 99 1 | |
| <i>Geotrichum sp.</i> | 2.30 | 0.28 | | 99 1 | |
| 130 | Low discrimination | | | | 130 |
| | | | | HYP | |
| <i>Cryptococcus neoformans</i> | 62.85 | 0.27 | LAC 1 | 1 | |
| <i>Trichosporon sp.</i> | 30.99 | 0.11 | | 99 | |
| <i>Geotrichum sp.</i> | 6.16 | -.08 | | 99 | |
| 140 | Low discrimination | | | | 140 |
| | | | | HYP | |
| <i>Trichosporon sp.</i> | 54.09 | 0.55 | TRE 3 | 99 | |
| <i>Candida glabrata</i> | 24.99 | 0.41 | | 1 | |
| <i>Cryptococcus neoformans</i> | 19.76 | 0.50 | | 1 | |
| 142 | Low discrimination | | | | 142 |
| | | | | HYP PSH | |
| <i>Candida lipolytica</i> | 67.03 | 0.41 | TRE 1 | 1 99 | |
| <i>Trichosporon sp.</i> | 30.77 | 0.31 | | 99 1 | |
| <i>Candida glabrata</i> | 0.96 | -.18 | | 1 1 | |
| 160 | Very good identification | | | | 160 |
| | | | | HYP | |
| <i>Cryptococcus neoformans</i> | 96.33 | 0.64 | | 1 | |
| <i>Trichosporon sp.</i> | 2.72 | 0.11 | | 99 | |
| <i>Geotrichum sp.</i> | 0.54 | -.08 | | 99 | |
| 161 | Good identification | | | | 161 |
| | | | | | |
| <i>Cryptococcus neoformans</i> | 100.0 | 0.35 | CEL 10 | | |
| 200 | Low discrimination | | | | 200 |
| | | | | HYP PSH | |
| <i>Saccharomyces cerevisiae</i> | 40.44 | 0.58 | MLT 90 | 1 19 | |
| <i>Candida krusei</i> | 26.46 | 0.41 | | 2 99 | |
| <i>Geotrichum sp.</i> | 18.69 | 0.41 | | 99 1 | |
| 202 | Low discrimination | | | | 202 |
| | | | | | |
| <i>Candida guilliermondii</i> | 43.13 | 0.41 | GAL 99 | | |
| <i>Candida lipolytica</i> | 18.26 | 0.23 | | | |
| <i>Candida krusei</i> | 12.92 | 0.17 | | | |
| 203 | Very good identification | | | | 203 |
| | | | | | |
| <i>Candida lusitaniae</i> | 96.39 | 0.67 | MLT 90 | | |
| <i>Candida guilliermondii</i> | 3.61 | 0.19 | | | |
| 210 | Acceptable identification | | | | 210 |
| | | | | | |

| Code Taxon | ID score | T index | tests against | Differentiation tests | Code |
|---------------------------------|---------------------------------|------------|------------------|-----------------------|------------|
| <i>Candida kefyr</i> | 91.77 | 0.39 | GAL 99 | | |
| <i>Saccharomyces cerevisiae</i> | 3.06 | -.01 | | | |
| <i>Candida krusei</i> | 2.00 | -.18 | | | |
| 211 | Good identification | | | | 211 |
| <i>Candida kefyr</i> | 100.0 | 0.41 | GAL 99 | | |
| 220 | Low discrimination | | | | 220 |
| <i>Candida kefyr</i> | 57.47 | 0.76 | | | |
| <i>Saccharomyces cerevisiae</i> | 32.54 | 0.72 | | | |
| <i>Candida guilliermondii</i> | 3.54 | 0.41 | | | |
| 221 | Very good identification | | | | 221 |
| | | | PSH | | |
| <i>Candida kefyr</i> | 97.70 | 0.78 | 98 | | |
| <i>Candida guilliermondii</i> | 0.90 | 0.19 | 99 | | |
| <i>Cryptococcus neoformans</i> | 0.56 | 0.13 | 1 | | |
| 222 | Very good identification | | | | 222 |
| <i>Candida guilliermondii</i> | 98.91 | 1.00 | | | |
| <i>Candida lusitaniae</i> | 0.37 | 0.34 | | | |
| <i>Candida parapsilosis</i> | 0.22 | 0.11 | | | |
| 223 | Low discrimination | | | | 223 |
| <i>Candida guilliermondii</i> | 70.67 | 0.78 | | | |
| <i>Candida lusitaniae</i> | 28.55 | 0.72 | | | |
| <i>Candida kefyr</i> | 0.78 | 0.19 | | | |
| 230 | Excellent identification | | | | 230 |
| <i>Candida kefyr</i> | 99.90 | 0.98 | | | |
| <i>Saccharomyces cerevisiae</i> | 0.10 | 0.13 | | | |
| 231 | Excellent identification | | | | 231 |
| <i>Candida kefyr</i> | 100.0 | 1.00 | | | |
| 232 | Low discrimination | | | | 232 |
| <i>Candida guilliermondii</i> | 51.82 | 0.41 | LAC 1 | | |
| <i>Candida kefyr</i> | 48.18 | 0.39 | | | |
| 233 | Low discrimination | | | | 233 |
| <i>Candida kefyr</i> | 81.50 | 0.41 | PRO 1 | | |
| <i>Candida guilliermondii</i> | 13.18 | 0.19 | | | |
| <i>Candida lusitaniae</i> | 5.32 | 0.13 | | | |
| 240 | Low discrimination | | | | 240 |
| <i>Saccharomyces cerevisiae</i> | 54.73 | 0.58 | MLT 90 | | |
| <i>Candida glabrata</i> | 42.91 | 0.41 | | | |
| <i>Cryptococcus neoformans</i> | 1.03 | 0.05 | | | |
| 242 | Low discrimination | | | | 242 |
| <i>Candida guilliermondii</i> | 74.13 | 0.41 | GAL 99 | | |
| <i>Candida lusitaniae</i> | 18.36 | 0.29 | | | |

| Code | | ID score | T index | tests against | Differentiation tests | Code |
|---------------------------------|----------------------------------|----------|---------|---------------|-----------------------|------------|
| Taxon | | | | | | |
| <i>Saccharomyces cerevisiae</i> | | 2.30 | -.01 | | | |
| 243 | Very good identification | | | | | 243 |
| <i>Candida lusitaniae</i> | | 96.39 | 0.67 | MLT 90 | | |
| <i>Candida guilliermondii</i> | | 3.61 | 0.19 | | | |
| 260 | Low discrimination | | | | | 260 |
| <i>Saccharomyces cerevisiae</i> | | 68.99 | 0.72 | MLT 90 | | |
| <i>Candida tropicalis</i> | | 16.61 | 0.41 | | | |
| <i>Candida guilliermondii</i> | | 7.50 | 0.41 | | | |
| 261 | Low discrimination | | | | | 261 |
| <i>Candida kefyr</i> | | 64.97 | 0.37 | TRE 4 | | |
| <i>Candida guilliermondii</i> | | 14.43 | 0.19 | | | |
| <i>Saccharomyces cerevisiae</i> | | 7.60 | 0.13 | | | |
| 262 | Very good identification | | | | | 262 |
| | | | | GET | | |
| <i>Candida guilliermondii</i> | | 95.15 | 1.00 | 1 | | |
| <i>Candida albicans</i> | | 2.26 | 0.41 | 91 | | |
| <i>Candida parapsilosis</i> | | 2.12 | 0.41 | 1 | | |
| 263 | Low discrimination | | | | | 263 |
| | | | | GET | | |
| <i>Candida guilliermondii</i> | | 71.09 | 0.78 | 1 | | |
| <i>Candida lusitaniae</i> | | 28.72 | 0.72 | 1 | | |
| <i>Candida albicans</i> | | 0.10 | -.18 | 91 | | |
| 270 | Very good identification | | | | | 270 |
| <i>Candida kefyr</i> | | 97.08 | 0.57 | TRE 4 | | |
| <i>Saccharomyces cerevisiae</i> | | 2.35 | 0.13 | | | |
| <i>Candida tropicalis</i> | | 0.57 | -.18 | | | |
| 271 | Very good identification | | | | | 271 |
| <i>Candida kefyr</i> | | 100.0 | 0.59 | TRE 4 | | |
| 272 | Acceptable identification | | | | | 272 |
| | | | | GET | | |
| <i>Candida guilliermondii</i> | | 92.18 | 0.41 | LAC 1 | 1 | |
| <i>Candida kefyr</i> | | 3.57 | -.02 | | 1 | |
| <i>Candida albicans</i> | | 2.19 | -.18 | | 91 | |
| 300 | Low discrimination | | | | | 300 |
| | | | | HYP | | |
| <i>Cryptococcus neoformans</i> | | 85.80 | 0.86 | 1 | | |
| <i>Trichosporon sp.</i> | | 13.82 | 0.55 | 99 | | |
| <i>Geotrichum sp.</i> | | 0.20 | 0.03 | 99 | | |
| 301 | Very good identification | | | | | 301 |
| | | | | HYP | | |
| <i>Cryptococcus neoformans</i> | | 95.71 | 0.58 | CEL 10 | 1 | |
| <i>Trichosporon sp.</i> | | 4.29 | 0.11 | | 99 | |
| 302 | Low discrimination | | | | | 302 |
| | | | | HYP PSH | | |
| <i>Candida lipolytica</i> | | 60.28 | 0.41 | SUC 1 | 1 99 | |
| <i>Trichosporon sp.</i> | | 27.67 | 0.31 | | 99 1 | |
| <i>Cryptococcus neoformans</i> | | 11.62 | 0.27 | | 1 1 | |

| Code Taxon | ID score | T index | tests against | Differentiation tests | Code |
|---|----------|---------|------------------|-----------------------|------------|
| 310 Low discrimination | | | | HYP | 310 |
| <i>Cryptococcus neoformans</i> | 66.98 | 0.27 | LAC 1 | 1 | |
| <i>Trichosporon sp.</i> | 33.02 | 0.11 | | 99 | |
| 320 Excellent identification | | | | HYP PSH | 320 |
| <i>Cryptococcus neoformans</i> | 99.54 | 1.00 | | 1 1 | |
| <i>Candida kefyr</i> | 0.17 | 0.17 | | 1 98 | |
| <i>Trichosporon sp.</i> | 0.17 | 0.11 | | 99 1 | |
| 321 Very good identification | | | | PSH | 321 |
| <i>Cryptococcus neoformans</i> | 98.24 | 0.72 | CEL 10 | 1 | |
| <i>Candida kefyr</i> | 1.76 | 0.19 | | 98 | |
| 322 Low discrimination | | | | PSH | 322 |
| <i>Candida guilliermondii</i> | 45.21 | 0.41 | URE 1 | 99 | |
| <i>Cryptococcus neoformans</i> | 44.25 | 0.41 | | 1 | |
| <i>Candida lipolytica</i> | 9.46 | 0.14 | | 99 | |
| 330 Low discrimination | | | | PSH | 330 |
| <i>Cryptococcus neoformans</i> | 51.28 | 0.41 | LAC 1 | 1 | |
| <i>Candida kefyr</i> | 48.72 | 0.39 | | 98 | |
| 331 Acceptable identification | | | | PSH | 331 |
| <i>Candida kefyr</i> | 90.94 | 0.41 | URE 1 | 98 | |
| <i>Cryptococcus neoformans</i> | 9.06 | 0.13 | | 1 | |
| 340 Very good identification | | | | HYP | 340 |
| <i>Cryptococcus neoformans</i> | 96.35 | 0.64 | | 1 | |
| <i>Trichosporon sp.</i> | 2.72 | 0.11 | | 99 | |
| <i>Saccharomyces cerevisiae</i> | 0.52 | -.01 | | 1 | |
| 341 Good identification | | | | PSH | 341 |
| <i>Cryptococcus neoformans</i> | 100.0 | 0.35 | CEL 10 | | |
| 360 Very good identification | | | | PSH | 360 |
| <i>Cryptococcus neoformans</i> | 99.33 | 0.78 | | 1 | |
| <i>Saccharomyces cerevisiae</i> | 0.54 | 0.13 | | 19 | |
| <i>Candida tropicalis</i> | 0.13 | -.18 | | 99 | |
| 361 Very good identification | | | | GET | 361 |
| <i>Cryptococcus neoformans</i> | 100.0 | 0.50 | CEL 10 | | |
| 362 Low discrimination | | | | PSH GET | 362 |
| <i>Candida guilliermondii</i> | 82.05 | 0.41 | URE 1 | 99 1 | |
| <i>Cryptococcus neoformans</i> | 14.17 | 0.19 | | 1 1 | |
| <i>Candida albicans</i> | 1.95 | -.18 | | 99 91 | |
| 400 Low discrimination | | | | PSH HYP | 400 |
| <i>Candida krusei</i> | 46.29 | 0.41 | MLT 1 | 99 2 | |
| <i>Geotrichum sp.</i> | 32.70 | 0.41 | | 1 99 | |
| <i>Trichosporon sp.</i> | 13.34 | 0.27 | | 1 99 | |

| Code Taxon | ID score | T index | tests against | Differentiation tests | Code |
|---|----------|---------|---------------|-----------------------|------------|
| 402 Low discrimination | | | | PSH HYP | 402 |
| <i>Candida lipolytica</i> | 73.20 | 0.41 | MLT 4 | 99 1 | |
| <i>Candida krusei</i> | 12.56 | 0.17 | | 99 2 | |
| <i>Geotrichum sp.</i> | 9.67 | 0.18 | | 1 99 | |
| 403 Good identification | | | | | 403 |
| <i>Candida lusitaniae</i> | 96.04 | 0.36 | SUC 99 | | |
| <i>Candida lipolytica</i> | 3.96 | -.18 | | | |
| 420 Low discrimination | | | | HYP PSH | 420 |
| <i>Saccharomyces cerevisiae</i> | 41.68 | 0.41 | SUC 99 | 1 19 | |
| <i>Geotrichum sp.</i> | 30.27 | 0.30 | | 99 1 | |
| <i>Candida tropicalis</i> | 18.97 | 0.18 | | 8 99 | |
| 423 Good identification | | | | | 423 |
| <i>Candida lusitaniae</i> | 100.0 | 0.41 | SUC 99 | | |
| 440 Low discrimination | | | | PSH | 440 |
| <i>Candida glabrata</i> | 85.02 | 0.41 | MLT 1 | 1 | |
| <i>Saccharomyces cerevisiae</i> | 9.86 | 0.27 | | 19 | |
| <i>Candida tropicalis</i> | 3.26 | 0.00 | | 99 | |
| 443 Good identification | | | | | 443 |
| <i>Candida lusitaniae</i> | 100.0 | 0.36 | SUC 99 | | |
| 460 Good identification | | | | GET | 460 |
| <i>Candida tropicalis</i> | 90.97 | 0.59 | SUC 96 | 3 | |
| <i>Saccharomyces cerevisiae</i> | 8.33 | 0.41 | | 1 | |
| <i>Candida albicans</i> | 0.24 | -.18 | | 91 | |
| 462 Low discrimination | | | | GET | 462 |
| <i>Candida albicans</i> | 49.65 | 0.41 | SUC 99 | 91 | |
| <i>Candida parapsilosis</i> | 46.58 | 0.41 | | 1 | |
| <i>Candida tropicalis</i> | 1.95 | 0.00 | | 3 | |
| 463 Acceptable identification | | | | GET | 463 |
| <i>Candida lusitaniae</i> | 93.30 | 0.41 | SUC 99 | 1 | |
| <i>Candida albicans</i> | 3.46 | -.18 | | 91 | |
| <i>Candida parapsilosis</i> | 3.24 | -.18 | | 1 | |
| 500 Low discrimination | | | | HYP | 500 |
| <i>Trichosporon sp.</i> | 79.25 | 0.55 | MLT 3 | 99 | |
| <i>Cryptococcus neoformans</i> | 18.23 | 0.44 | | 1 | |
| <i>Geotrichum sp.</i> | 1.14 | 0.03 | | 99 | |
| 502 Low discrimination | | | | HYP PSH | 502 |
| <i>Candida lipolytica</i> | 89.71 | 0.59 | MLT 4 | 1 99 | |
| <i>Trichosporon sp.</i> | 9.98 | 0.31 | | 99 1 | |
| <i>Geotrichum sp.</i> | 0.16 | -.20 | | 99 1 | |
| 520 Good identification | | | | HYP | 520 |

| Code | | ID score | T index | tests against | Differentiation tests | Code |
|---------------------------------|----------------------------------|----------|---------|---------------|-----------------------|------|
| Taxon | | | | | | |
| <i>Cryptococcus neoformans</i> | | 94.90 | 0.58 | MLT 10 | 1 | |
| <i>Trichosporon sp.</i> | | 4.25 | 0.11 | | 99 | |
| <i>Geotrichum sp.</i> | | 0.85 | -.08 | | 99 | |
| 521 | Good identification | | | | 521 | |
| <i>Cryptococcus neoformans</i> | | 100.0 | 0.30 | MLT 10 | | |
| 522 | Acceptable identification | | | | 522 | |
| | | | | HYP PSH | | |
| <i>Candida lipolytica</i> | | 93.47 | 0.32 | MLT 4 | 1 99 | |
| <i>Cryptococcus neoformans</i> | | 3.93 | -.01 | GAL 11 | 1 1 | |
| <i>Trichosporon sp.</i> | | 2.60 | -.14 | | 99 1 | |
| 560 | Low discrimination | | | | 560 | |
| | | | | PSH | | |
| <i>Cryptococcus neoformans</i> | | 87.28 | 0.35 | MLT 10 | 1 | |
| <i>Candida tropicalis</i> | | 12.72 | 0.00 | | 99 | |
| 600 | Very good identification | | | | 600 | |
| | | | | PSH | | |
| <i>Saccharomyces cerevisiae</i> | | 99.27 | 0.86 | | 19 | |
| <i>Candida tropicalis</i> | | 0.33 | 0.00 | | 99 | |
| <i>Cryptococcus neoformans</i> | | 0.13 | -.01 | | 1 | |
| 601 | Low discrimination | | | | 601 | |
| <i>Candida lusitaniae</i> | | 60.56 | 0.36 | PRO 99 | | |
| <i>Saccharomyces cerevisiae</i> | | 39.44 | 0.27 | | | |
| 602 | Low discrimination | | | | 602 | |
| <i>Candida lusitaniae</i> | | 77.69 | 0.57 | CEL 95 | | |
| <i>Saccharomyces cerevisiae</i> | | 9.71 | 0.27 | | | |
| <i>Candida parapsilosis</i> | | 7.61 | 0.11 | | | |
| 603 | Very good identification | | | | 603 | |
| <i>Candida lusitaniae</i> | | 100.0 | 0.95 | | | |
| 610 | Good identification | | | | 610 | |
| <i>Saccharomyces cerevisiae</i> | | 100.0 | 0.27 | LAC 1 | | |
| 613 | Good identification | | | | 613 | |
| <i>Candida lusitaniae</i> | | 100.0 | 0.36 | LAC 1 | | |
| 620 | Low discrimination | | | | 620 | |
| <i>Saccharomyces cerevisiae</i> | | 89.43 | 1.00 | | | |
| <i>Candida tropicalis</i> | | 9.87 | 0.59 | | | |
| <i>Candida parapsilosis</i> | | 0.24 | 0.11 | | | |
| 621 | Low discrimination | | | | 621 | |
| <i>Saccharomyces cerevisiae</i> | | 42.55 | 0.41 | CEL 1 | | |
| <i>Candida lusitaniae</i> | | 32.66 | 0.41 | | | |
| <i>Candida tropicalis</i> | | 14.38 | 0.15 | | | |
| 622 | Low discrimination | | | | 622 | |
| | | | | GET | | |
| <i>Candida parapsilosis</i> | | 56.44 | 0.70 | TRE 91 | 1 | |
| <i>Candida albicans</i> | | 18.81 | 0.55 | | 91 | |

| Code | | ID score | T index | tests against | Differentiation tests | Code |
|---------------------------------|----------------------------------|----------|---------|---------------|-----------------------|------------|
| Taxon | | | | | | |
| <i>Candida guilliermondii</i> | | 13.60 | 0.62 | | 1 | |
| 623 | Very good identification | | | | | 623 |
| <i>Candida lusitaniae</i> | | 98.13 | 1.00 | | | |
| <i>Candida guilliermondii</i> | | 1.42 | 0.40 | | | |
| <i>Candida parapsilosis</i> | | 0.34 | 0.11 | | | |
| 630 | Low discrimination | | | | | 630 |
| <i>Candida kefyr</i> | | 50.04 | 0.39 | MLT 1 | | |
| <i>Saccharomyces cerevisiae</i> | | 44.99 | 0.41 | | | |
| <i>Candida tropicalis</i> | | 4.97 | 0.00 | | | |
| 631 | Good identification | | | | | 631 |
| <i>Candida kefyr</i> | | 100.0 | 0.41 | MLT 1 | | |
| 633 | Good identification | | | | | 633 |
| <i>Candida lusitaniae</i> | | 98.31 | 0.41 | LAC 1 | | |
| <i>Candida kefyr</i> | | 1.69 | -.18 | | | |
| 640 | Good identification | | | | | 640 |
| | | | | GET | | |
| <i>Saccharomyces cerevisiae</i> | | 92.28 | 0.86 | | 1 | |
| <i>Candida tropicalis</i> | | 7.41 | 0.41 | | 3 | |
| <i>Candida albicans</i> | | 0.08 | -.18 | | 91 | |
| 641 | Low discrimination | | | | | 641 |
| <i>Candida lusitaniae</i> | | 55.21 | 0.36 | PRO 99 | | |
| <i>Saccharomyces cerevisiae</i> | | 35.96 | 0.27 | | | |
| <i>Candida tropicalis</i> | | 8.84 | -.04 | | | |
| 642 | Low discrimination | | | | | 642 |
| | | | | GET | | |
| <i>Candida albicans</i> | | 32.95 | 0.41 | GAL 99 | 91 | |
| <i>Candida lusitaniae</i> | | 31.19 | 0.57 | | 1 | |
| <i>Candida parapsilosis</i> | | 30.91 | 0.41 | | 1 | |
| 643 | Very good identification | | | | | 643 |
| | | | | GET | | |
| <i>Candida lusitaniae</i> | | 99.89 | 0.95 | | 1 | |
| <i>Candida albicans</i> | | 0.06 | -.18 | | 91 | |
| <i>Candida parapsilosis</i> | | 0.05 | -.18 | | 1 | |
| 650 | Acceptable identification | | | | | 650 |
| <i>Saccharomyces cerevisiae</i> | | 92.57 | 0.27 | LAC 1 | | |
| <i>Candida tropicalis</i> | | 7.43 | -.18 | | | |
| 653 | Good identification | | | | | 653 |
| <i>Candida lusitaniae</i> | | 100.0 | 0.36 | LAC 1 | | |
| 660 | Low discrimination | | | | | 660 |
| | | | | GET | | |
| <i>Candida tropicalis</i> | | 71.49 | 1.00 | | 3 | |
| <i>Saccharomyces cerevisiae</i> | | 26.99 | 1.00 | | 1 | |
| <i>Candida albicans</i> | | 0.77 | 0.41 | | 91 | |
| 661 | Low discrimination | | | | | 661 |

| Code | ID score | T index | tests against | Differentiation tests | Code |
|---------------------------------|----------------------------------|---------|---------------|-----------------------|------------|
| Taxon | | | | | |
| <i>Candida tropicalis</i> | 81.65 | 0.55 | CEL 3 | | |
| <i>Saccharomyces cerevisiae</i> | 10.07 | 0.41 | | | |
| <i>Candida lusitaniae</i> | 7.73 | 0.41 | | | |
| 662 | Low discrimination | | | | 662 |
| | | | | GET | |
| <i>Candida albicans</i> | 50.30 | 1.00 | | 91 | |
| <i>Candida parapsilosis</i> | 47.19 | 1.00 | | 1 | |
| <i>Candida guilliermondii</i> | 1.12 | 0.62 | | 1 | |
| 663 | Good identification | | | | 663 |
| | | | | GET | |
| <i>Candida lusitaniae</i> | 91.96 | 1.00 | | 1 | |
| <i>Candida albicans</i> | 3.41 | 0.41 | | 91 | |
| <i>Candida parapsilosis</i> | 3.20 | 0.41 | | 1 | |
| 670 | Low discrimination | | | | 670 |
| | | | | LAC 1 | |
| <i>Candida tropicalis</i> | 70.63 | 0.41 | | | |
| <i>Saccharomyces cerevisiae</i> | 26.67 | 0.41 | | | |
| <i>Candida kefyr</i> | 1.24 | -.02 | | | |
| 672 | Low discrimination | | | | 672 |
| | | | | GET | |
| <i>Candida albicans</i> | 50.40 | 0.41 | LAC 1 | 91 | |
| <i>Candida parapsilosis</i> | 47.28 | 0.41 | | 1 | |
| <i>Candida guilliermondii</i> | 1.13 | 0.03 | | 1 | |
| 673 | Acceptable identification | | | | 673 |
| | | | | GET | |
| <i>Candida lusitaniae</i> | 93.30 | 0.41 | LAC 1 | 1 | |
| <i>Candida albicans</i> | 3.46 | -.18 | | 91 | |
| <i>Candida parapsilosis</i> | 3.24 | -.18 | | 1 | |
| 700 | Low discrimination | | | | 700 |
| | | | | HYP | |
| <i>Cryptococcus neoformans</i> | 89.09 | 0.58 | MLT 10 | 1 | |
| <i>Saccharomyces cerevisiae</i> | 6.92 | 0.27 | | 1 | |
| <i>Trichosporon sp.</i> | 3.99 | 0.11 | | 99 | |
| 701 | Good identification | | | | 701 |
| | | | | | |
| <i>Cryptococcus neoformans</i> | 100.0 | 0.30 | MLT 10 | | |
| 703 | Good identification | | | | 703 |
| | | | | | |
| <i>Candida lusitaniae</i> | 100.0 | 0.36 | URE 1 | | |
| 720 | Good identification | | | | 720 |
| | | | | PSH | |
| <i>Cryptococcus neoformans</i> | 92.06 | 0.72 | MLT 10 | 1 | |
| <i>Saccharomyces cerevisiae</i> | 7.15 | 0.41 | | 19 | |
| <i>Candida tropicalis</i> | 0.79 | 0.00 | | 99 | |
| 721 | Good identification | | | | 721 |
| | | | | | |
| <i>Cryptococcus neoformans</i> | 100.0 | 0.44 | MLT 10 | | |
| 723 | Good identification | | | | 723 |
| | | | | PSH | |
| <i>Candida lusitaniae</i> | 98.15 | 0.41 | URE 1 | 98 | |
| <i>Cryptococcus neoformans</i> | 1.85 | -.15 | | 1 | |
| 740 | Low discrimination | | | | 740 |

| Code Taxon | ID score | T index | tests against | Differentiation tests | Code |
|---------------------------------|----------------------------------|------------|------------------|-----------------------|------------|
| | | | | PSH | |
| <i>Cryptococcus neoformans</i> | 67.78 | 0.35 | MLT 10 | 1 | |
| <i>Saccharomyces cerevisiae</i> | 29.82 | 0.27 | | 19 | |
| <i>Candida tropicalis</i> | 2.39 | -.18 | | 99 | |
| 743 | Good identification | | | | 743 |
| <i>Candida lusitaniae</i> | 100.0 | 0.36 | URE 1 | | |
| 760 | Low discrimination | | | | 760 |
| | | | | PSH | |
| <i>Candida tropicalis</i> | 44.32 | 0.41 | URE 1 | 99 | |
| <i>Cryptococcus neoformans</i> | 38.03 | 0.50 | | 1 | |
| <i>Saccharomyces cerevisiae</i> | 16.73 | 0.41 | | 19 | |
| 762 | Low discrimination | | | | 762 |
| | | | | GET | |
| <i>Candida albicans</i> | 50.19 | 0.41 | URE 1 | 91 | |
| <i>Candida parapsilosis</i> | 47.08 | 0.41 | | 1 | |
| <i>Candida guilliermondii</i> | 1.12 | 0.03 | | 1 | |
| 763 | Acceptable identification | | | | 763 |
| | | | | GET | |
| <i>Candida lusitaniae</i> | 93.30 | 0.41 | URE 1 | 1 | |
| <i>Candida albicans</i> | 3.46 | -.18 | | 91 | |
| <i>Candida parapsilosis</i> | 3.24 | -.18 | | 1 | |

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