b|e|i RESOURCES

SUPPORTING INFECTIOUS DISEASE RESEARCH

# Certificate of Analysis for NR-52713

## *Candida auris*, Strain AKU-2017-385

## Catalog No. NR-52713

## Product Description:

*Candida auris (C. auris)*, strain AKU-2017-385 was isolated in 2017 from the bloodstream of a human with nosocomial fungemia in Karachi, Pakistan. Strain AKU-2017-385 was deposited as susceptible to anidulafungin and resistant to amphotericin and fluconazole. NR-52713 was produced by inoculation of BEI Resources seed lot 70038124 into Yeast Mold medium, which was grown for 4 days at 25°C in an aerobic atmosphere. The agar growth was harvested with 20% glycerol to produce this lot.

**Lot: 70055053** **Manufacturing Date: 15AUG2022**

| TEST | SPECIFICATIONS | RESULTS |
|---|---|---|
| **Phenotypic Analysis** | | |
| Cellular morphology<br>4 days at 25°C in an aerobic atmosphere on Yeast Mold agar | Report results | Globose-to-subglobose; in singles and in pairs; no pseudohyphae observed (Figure 1) |
| Colony morphology | Report results | Butyrous and cream (Figure 2) |
| VITEK® 2 (YST card) | *C. auris* (≥ 89%) | *C. auris* (99%) |
| **Antibiotic Susceptibility Profile**[1] | | |
| Etest® antibiotic test strips<br>2 days at 35°C in an aerobic atmosphere on RPMI 1640 with MOPS and 2% glucose | | |
| Amphotericin B | Resistant | Resistant (3 to 4 µg/mL) |
| Anidulafungin | Susceptible | Susceptible (0.19 µg/mL) |
| Fluconazole | Resistant | Resistant (> 256 µg/mL) |
| Voriconazole | Report results | Inconclusive[2] |
| **Genotypic Analysis** | | |
| Sequencing of partial 18S ribosomal RNA (rRNA) gene, internal transcribed spacer (ITS) 1, 5.8S rRNA gene, ITS 2, partial 26S rRNA (~ 360 base pairs) | ≥ 99% sequence identity to *C. auris*, strain B8441 (GenBank: PEKT02000002.1) | 100% sequence identity to *C. auris*, strain B8441 (GenBank: PEKT02000002.1) |
| Sequencing of 28S rRNA gene (~ 540 base pairs) | ≥ 99% sequence identity to *C. auris*, strain B8441 (GenBank: PEKT02000002.1) | 100% sequence identity to *C. auris,* strain B8441 (GenBank: PEKT02000002.1) |
| **Purity** | | |
| Nutrient broth with 0.1% Yeast Extract at 25°C<br>3 days in an aerobic atmosphere | No bacterial growth | No bacterial growth |
| Nutrient broth with 0.1% Yeast Extract at 37°C<br>3 days in an aerobic atmosphere | No bacterial growth | No bacterial growth |
| **Viability (post-freeze)**<br>4 days at 25°C in an aerobic atmosphere on Yeast Mold agar | Growth | Growth |

[1]Minimum Inhibitory Concentration (MIC). Currently, there are no established *C. auris*-specific MIC interpretation guidelines; therefore, breakpoints are defined based on those established for closely related *Candida* species. For more information, refer to Forsberg, K., et al. "*Candida auris*: The Recent Emergence of a Multidrug-Resistant Fungal Pathogen." Med. Mycol. 57 (2019): 1-12. PubMed: 30085270.

[2]Repeated antibiotic susceptibility testing determined that for strain AKU-2017-385, the voriconazole MICs are 0.38 µg/mL (interpreted as susceptible) and 5 µg/mL (interpreted as resistant).

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# Certificate of Analysis for NR-52713

**Figure 1: Cellular Morphology**

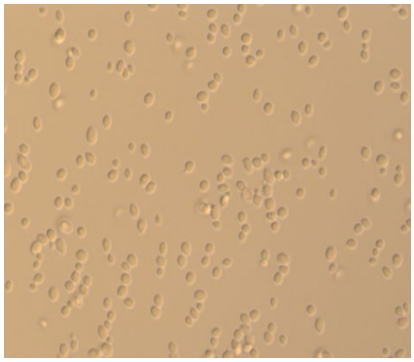
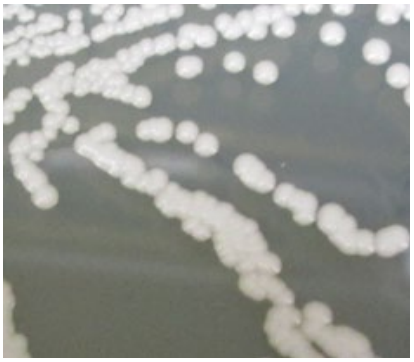


**Figure 2: Colony Morphology**



/Sonia Bjorum Brower/
Sonia Bjorum Brower 03 JUL 2023
Technical Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.



Support Provided by NIAID

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