

**Candida auris, Strain AKU-2019-43**

**Catalog No. NR-52716**

**Product Description:**

*Candida auris* (*C. auris*), strain AKU-2019-43 was isolated in 2019 from the ear of a human with *otitis externa* in Karachi, Pakistan. Strain AKU-2019-43 was deposited as susceptible to fluconazole, amphotericin and anidulafungin. NR-52716 lot 70038716 was produced by inoculation of the deposited material onto Emmons' Modified Sabouraud Dextrose agar, which was grown for 3 days at 25°C in an aerobic atmosphere. The agar growth was harvested with 20% glycerol to produce this lot.

**Lot: 70038716**

**Manufacturing Date: 14SEP2020**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology 3 days at 25°C in an aerobic atmosphere on Emmons' Modified Sabouraud Dextrose agar Colony morphology Biochemical tests VITEK® 2 (YST card)	Report results  Report results  <i>C. auris</i> (≥ 89%)	Globose-to-subglobose with some ovoid cells; no pseudohyphae observed (Figure 1a) Butyrous and off-white (Figure 1b) <i>C. auris</i> (98%)
<b>Antibiotic Susceptibility Profile<sup>1</sup></b> Etest® antibiotic test strips 2 days at 35°C in an aerobic atmosphere on RPMI 1640 medium with MOPS and 2% glucose Amphotericin B Anidulafungin Fluconazole Voriconazole	Susceptible Susceptible Susceptible Report results	Susceptible (0.5 µg/mL) Susceptible (0.094 to 0.125 µg/mL) Resistant (> 256 µg/mL) <sup>2</sup> 0.38 µg/mL
<b>Genotypic Analysis</b> Sequencing of partial 18S ribosomal RNA (rRNA) gene, internal transcribed spacer (ITS) 1, 5.8S rRNA gene, ITS 2, partial 26S rRNA (350 base pairs) Sequencing of 28S rRNA gene (~ 540 base pairs)	≥ 99% sequence identity to <i>C. auris</i> , strain B8441 (GenBank: PEKT02000002.1) ≥ 99% sequence identity to <i>C. auris</i> , strain B8441 (GenBank: PEKT02000002.1)	100% sequence identity to <i>C. auris</i> , strain B8441 (GenBank: PEKT02000002.1) 100% sequence identity to <i>C. auris</i> , strain B8441 (GenBank: PEKT02000002.1)
<b>Purity</b> Nutrient broth with 0.1% Yeast Extract at 25°C 3 days in an aerobic atmosphere Nutrient broth with 0.1% Yeast Extract at 37°C 3 days in an aerobic atmosphere	No bacterial growth  No bacterial growth	No bacterial growth  No bacterial growth
<b>Viability (post-freeze)</b> 3 days at 25°C in an aerobic atmosphere on Emmons' Modified Sabouraud Dextrose agar	Growth	Growth

<sup>1</sup>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.

<sup>2</sup>*C. auris*, strain AKU-2019-43 was deposited as susceptible to fluconazole, however, testing performed in duplicate by BEI Resources resulted in an MIC of > 256 µg/mL (interpreted as resistant).

Figure 1a: Cellular Morphology

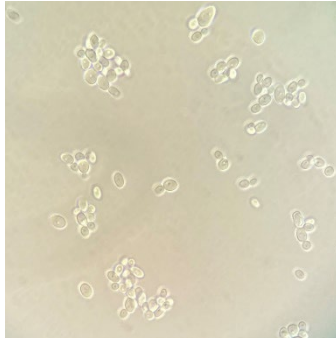


Figure 1b: Colony Morphology



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