Candida auris, Strain AKU-2019-43

Catalog No. NR-52716

For research use only. Not for use in humans.

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Manufacturer:
BEI Resources

Product Description:
Classification: Mitosporic Saccharomycetales; Candida
Species: Candida auris
Strain/Isolate: AKU-2019-43
Original Source: Candida auris (C. auris), strain AKU-2019-43 was isolated in 2019 from the ear of a human with otitis externa in Karachi, Pakistan.1
Comment: Strain AKU-2019-43 was deposited as susceptible to fluconazole, amphotericin and anidulafungin.1

C. auris is an emerging multidrug-resistant pathogenic yeast, which causes invasive infections and outbreaks in nosocomial settings, resulting in high mortality. Since it was first described in 2009, C. auris has been isolated in over 30 countries on 6 continents, with the earliest known isolate from 1996 discovered during a retrospective review of unidentified yeasts.2 C. auris is unique among disease-causing yeasts in that it behaves more like transmissible multidrug-resistant bacteria in healthcare settings, capable of transmission between patients through shedding and requiring specific control measures.2,3 Infections primarily affect patients with underlying medical conditions or who have had recent surgery. C. auris is capable of colonizing patients in both sterile and non-sterile sites such as skin, and is known to colonize and persist in the environment, including on healthcare surfaces and equipment, such as catheters, attributed to biofilm formation.4,5 Misidentification by commercial biochemical tests, often as closely related C. haemulonii, delays treatment and implementation of control measures.4,5

C. auris has a strong phylogeographic structure comprising four distinct clades, South Asia, East Asia, South Africa and South America, separated by tens of thousands of SNPs, with smaller clusters identified in some clades.3 This high level of relatedness and low genetic diversity within clades suggests clades emerged independently and near-simultaneously in four distinct locations rather than a single spread.3,4

Material Provided:
Each vial contains approximately 0.5 mL of yeast culture in 20% glycerol.

Packaging/Storage:
NR-52716 was packaged aseptically in cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:
Media:
Sabouraud Dextrose broth or Yeast Mold broth or equivalent
Sabouraud Dextrose agar or Yeast Mold agar or equivalent

Incubation:
Temperature: 25°C to 30°C
Atmosphere: Aerobic

Propagation:
1. Keep vial frozen until ready for use; thaw rapidly in a waterbath at 25°C to 30°C. Typically, this takes less than 5 minutes.
2. Immediately after thawing, inoculate an agar plate with approximately 50 µL of thawed culture and/or transfer the entire thawed aliquot into a single tube of broth.
3. Incubate the plate and/or tube at 25°C to 30°C for 2 to 4 days.

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Candida auris, Strain AKU-2019-43, NR-52716.”

Biosafety Level: 2


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References:
1. Farooqi, J., Personal Communication.

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