Candida auris, Strain AKU-2017-385

Catalog No. NR-52713

For research use only. Not for use in humans.

Contributor:
Joveria Farooqi, Professor, Department of Pathology and Laboratory Medicine, Aga Khan University, Karachi, Pakistan

Manufacturer:
BEI Resources

Product Description:
Classification: Mitosporic Saccharomycetales; Candida
Species: Candida auris
Strain/Isolate: AKU-2017-385
Original Source: Candida auris (C. auris), strain AKU-2017-385 was isolated in 2017 from the bloodstream of a human with nosocomial fungemia in Karachi, Pakistan.1,2
Comment: Strain AKU-2017-385 was deposited as susceptible to anidulafungin and resistant to amphotericin and fluconazole.3

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.2,3,4

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

Packaging/Storage:
NR-52713 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
Progression:
Temperature: 25°C to 30°C
Atmosphere: Aerobic
Incubation:
1. Keep vial frozen until ready for use; thaw rapidly in a water bath 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-2017-385, NR-52713.”

Biosafety Level: 2

Disclaimers:
You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.
Use Restrictions:
This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

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

ATCC® is a trademark of the American Type Culture Collection.