MAYO CLINIC LABORATORIES

# Test Definition: CAURS

Candida auris Surveillance, Molecular Detection, PCR, Varies

## Overview

### Useful For

Detecting *Candida auris* from surveillance swabs

This test should **not be used** to determine cure or to monitor response to therapy.

### Method Name

Real-Time Polymerase Chain Reaction (PCR)

### NY State Available

Yes

## Specimen

### Specimen Type

Swab

### Shipping Instructions

Specimen **must arrive** within 7 days of collection.

### Necessary Information

**Specimen source is required.**

### Specimen Required

**Supplies:** E-swab (T853)
**Source**: Axilla and groin composite
**Container/Tube:** ESwabs in liquid Amies medium
**Specimen Volume:** Swab
**Collection Instructions:**
1. Swab transport containers without charcoal must contain a pledget saturated with either Stuart's or Amies liquid media.
2. Swab used for this test cannot be shared with fungal culture. When fungal culture is ordered with this test, send separate swabs for each.

### Forms

If not ordering electronically, complete, print, and send a Microbiology Test Request (T244) with the specimen.

### Specimen Minimum Volume

See Specimen Required

### Reject Due To

| | |
|---|---|
| Wood shaft or charcoal swab | Reject |
| Culturette swab | Reject |
| Clear semi-solid/solid media | Reject |

### Specimen Stability Information

| Specimen Type | Temperature | Time | Special Container |
|---|---|---|---|
| Swab | Refrigerated (preferred) | 7 days | |
| | Frozen | 7 days | |

## Clinical & Interpretive

### Clinical Information

*Candida auris* can cause serious, and sometimes fatal, infections, is often resistant to one or more classes of antifungal drugs, and inappropriate treatment may occur as it can be misidentified in the laboratory. In addition, *C auris* appears to be more resistant to disinfection than other yeasts, leading to prolonged survival in the environment, increasing the possibility of transmission in hospitals and nursing homes.

In December 2018, the Centers for Disease Control and Prevention (CDC) recommended that healthcare facilities implement routine surveillance screening of patients who have had an overnight stay in a healthcare facility outside of the US over the past year, particularly if the hospitalization was in a country with confirmed cases of *C auris*. The CDC also recommended considering screening of patients who have been hospitalized outside of the US and have a documented infection or colonization with a carbapenemase-producing gram-negative bacteria. These patients have frequently been found to have *C auris* colonization as well. A second group of people for whom screening is recommended includes healthcare workers who have been in close contact with patients who have previously unrecognized *C auris* infection or colonization.

The *C auris* polymerase chain reaction assay detects and identifies *C auris* combination groin/axilla surveillance swabs.

### Reference Values

Not applicable

### Interpretation

A positive result indicates the presence of *Candida auris* DNA.

A negative result indicates the absence of detectable *C auris* DNA.

An invalid result indicates that the presence or absence of *C auris* DNA could not be determined with certainty after repeat testing in the laboratory, possibly due to inhibition or the presence of an interfering substance. If clinically indicated, submission of a new specimen for testing is recommended.

### Cautions

A negative result does not rule out the presence of *Candida auris* because the organism may be present at levels below the limit of detection for this assay.

This assay detects *C auris* nucleic acid and, therefore, does not distinguish between viable, disease-related organisms and nucleic acid persisting from prior or treated infection. Test results should be correlated with patient symptoms and clinical presentation before a definitive diagnosis is made.

### Supportive Data

During test verification, 32 culture isolates of *Candida auris,* previously identified using the Bruker matrix-assisted laser desorption/ionization time-of-flight mass spectrometer, were tested, and all 32 positively identified as *Candida auris* by this polymerase chain reaction (PCR) assay.

Verification studies indicated that the limit of detection (LOD) for *C auris* spiked onto E-swabs was 37 colony-forming units (CFU)/20 mcL reaction. To evaluate the accuracy of the assay, 30 swabs were spiked with *C auris* at 1 log above the LOD and 28/30 were positive for E-swabs (93%) by the PCR assay. A panel of 86 surveillance groin/axilla swabs collected from patients meeting the Centers for Disease Control and Prevention screening criteria was tested and was 100% concordant (85 negative, 1 inhibited) with a second PCR surveillance assay performed by the Minnesota Department of Health.

A specificity panel consisting of 78 common skin flora organisms or pathogens (bacteria, yeast, molds, viruses, and parasites) and all were negative by the PCR assay. No positivity was found with any other species of *Candida* including the closely related *Candida duobushaemulonii* and *Candida haemulonii.*

### Clinical Reference

1. Spivak ES, Hanson KE. Candida auris: an emerging fungal pathogen. J Clin Microbiol. 2018;56(2):e01588-17
2. Centers for Disease Control and Prevention (CDC). *Candida auris*. CDC; Updated February 26, 2026. Accessed May 11, 2026. Available at www.cdc.gov/candida-auris/about/index.html l
3. Navalkele BD, Revankar S, Chandrasekar P. Candida auris: a worrisome, globally emerging pathogen. Expert Rev Anti Infect Ther. 2017;15(9):819-827

## Performance

### Method Description

Swabs are processed by placing 50 mcL of the Amies transport medium from an ESwab into neutralization buffer. DNA is extracted.

The extracted DNA is placed on the LightCycler 480 instrument, which amplifies and monitors by fluorescence the development of target nucleotide sequences after each polymerase chain reaction (PCR) cycle. A specific 269 base pairs

target sequence from a portion of the 28S rDNA gene from *Candida auris* is amplified and the resulting segment is detected by melt-curve analysis using sequence-specific fluorescence resonance energy transfer hybridization probes.(Walchak RC, Buckwalter SP, Zinsmaster NM, et al. *Candida auris* direct detection from surveillance swabs, blood, and urine using a laboratory-developed PCR method. J Fungi (Basel). 2020;6(4):224. doi:10.3390/jof6040224)

### PDF Report
No

### Day(s) Performed
Monday through Sunday

### Report Available
1 to 3 days

### Specimen Retention Time
7 days

### Performing Laboratory Location
Mayo Clinic Laboratories - Rochester Main Campus

## Fees & Codes

### Fees
- Authorized users can sign in to Test Prices for detailed fee information.
- Clients without access to Test Prices can contact Customer Service 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact Customer Service.

### Test Classification
This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. It has not been cleared or approved by the US Food and Drug Administration.

### CPT Code Information
87481

### LOINC® Information

| Test ID | Test Order Name | Order LOINC® Value |
|---|---|---|
| CAURS | Candida auris Surveillance, PCR | 95765-4 |

| Result ID | Test Result Name | Result LOINC® Value |
|---|---|---|
| SRCSR | Specimen Source | 31208-2 |
| SCAR | C auris PCR, Result | 95765-4 |