AR Isolate Bank
10 Facts to Celebrate 10 Years

500K
AR Isolates Shipped

Founded in 2015, CDC and FDA's Antimicrobial Resistance Isolate Bank (AR Isolate Bank) is one of the largest collections of drug-resistant isolates (pure samples of bacteria and fungi) in the world. With a wide selection of high-quality and well-characterized isolates, the AR Isolate Bank helps improve patient care and supports detection of and response to drug resistance. In 2025, the AR Isolate Bank reached two major milestones: **10 years of service and 500,000 isolates shipped**. Here are 10 facts to celebrate 10 years.

1

The AR Isolate Bank has grown from 3 to 34 isolate panels with more than 1,000 unique isolates.
Since 2015, the AR Isolate Bank has gathered isolates from national reference labs, academia, and CDC response activities in healthcare, food, and community settings. In 10 years, the AR Isolate Bank has completed 6,495 orders, shipped 13,500 panels, and expanded to 1,075 unique isolates.

2

Isolate panels are curated.
A panel refers to a set of unique isolates curated for specific use and with desired traits such as resistance patterns or susceptibility. The AR Isolate Bank offers custom panels, which are tailored sets of isolates from existing, established panels to meet specific research, clinical or diagnostic needs.

3

Isolates and testing data are available for free to approved institutions.
Isolates are provided at no cost to approved institutions. Customers only pay for shipping. Each set comes with antimicrobial susceptibility data, which measures how likely a drug is to kill a pathogen. These data are available on the AR Isolate Bank website along with whole genome sequencing (WGS) data. CDC publishes WGS data on the National Center for Biotechnology Information (NCBI), which customers can download at any time.

4

Isolates are a critical resource for identifying the best treatment options.
Scientists have used isolates to develop laboratory susceptibility tests for easier detection of drug resistance and susceptibility. For example, the Clinical and Laboratory Standards Institute (CLSI) developed the Breakpoint Implementation Toolkit with recommendations for clinical laboratories to use AR Isolate Bank panels to update their breakpoints—values that determine whether or not the drug will work. This helps labs and clinicians choose the right treatment for a specific patient sooner.

5

Experts keep panels up to date to reflect emerging threats.
AR Isolate Bank offerings prioritize the pathogens of most concern to public health. As new antibiotics and antifungals are developed and approved for use and isolates from emerging threats are received for testing, CDC refreshes isolate panels to ensure they are always current. By making these isolates available early, CDC and state public health lab partners can develop and implement laboratory methods that improve the speed and sensitivity of detecting and identifying resistant organisms.

6

Isolates are a key part of drug development and food safety.
Drug-resistant infections can be difficult and sometimes impossible to treat with existing antibiotics and antifungals. This creates an urgent need for new treatments, which researchers and manufacturers can test with specific isolates. Isolates can also be used to study drug-resistant pathogens in foods and help find promising tools to improve food safety.

7

Isolates are required for medical device testing and to test the effectiveness of disinfectants.
Isolates have been used in clinical trials and FDA submissions for some medical devices to get approval for use in clinical settings. This ensures devices are safe before use in medical diagnostics. The U.S. Environmental Protection Agency (EPA) requires disinfectant manufacturers to use isolates to test their products for any claims on the product's label. When the right disinfectants are used, they can prevent the spread of pathogens in healthcare settings.

8

Unique isolate strains support rapid detection during outbreaks.
AR Isolate Bank offerings include isolates associated with outbreaks and can be used to look for alternative drugs to treat infections caused by specific strains of a pathogen. Rapid detection of drug-resistant threats allows healthcare facilities to take immediate action to prevent spread and improve patient safety and care.

9

Laboratories use isolates to validate tests for better detection and faster reporting.
Researchers and manufacturers use the AR Isolate Bank to develop new and enhanced diagnostic tests that detect how bacteria and fungi respond to treatments. Newer rapid testing platforms enable laboratories to report results within hours. Faster reporting helps healthcare providers choose effective treatments, treat patients faster with fewer adverse events, and prevent further spread of bacteria and fungi, which can significantly improve survival rates.

10

AR Isolate Bank's work helps combat drug resistance in the U.S.
The AR Isolate Bank helps achieve the following national goals to combat drug resistance:

- Strengthen national surveillance and response efforts
- Advance the development and use of rapid and innovative diagnostic tests
- Accelerate the development of new antimicrobial agents, vaccines, and other therapeutics to prevent or treat infections

For more information on the AR Isolate Bank, visit:
https://bit.ly/4rRaDGu

CDC

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