MAYO CLINIC LABORATORIES

Test Definition: AERMC

Aeromonas Culture, Feces

Overview

Useful For

Determining whether *Aeromonas* species may be the cause of diarrhea

This test is generally **not useful for** patients hospitalized more than 3 days because the yield from specimens from these patients is very low, as is the likelihood of identifying a pathogen that has not been detected previously.

Reflex Tests

Test Id	Reporting Name	Available Separately	Always Performed
GID	Bacteria Identification	No, (Bill Only)	No
ISAE	Aerobe Ident by Sequencing	No, (Bill Only)	No
REFID	Additional Identification Procedure	No, (Bill Only)	No
RMALD	Ident by MALDI-TOF mass spec	No, (Bill Only)	No

Testing Algorithm

When this test is ordered, the reflex tests may be performed and charged separately.

For more information see Laboratory Testing for Infectious Causes of Diarrhea.

Special Instructions

- Laboratory Testing for Infectious Causes of Diarrhea

Highlights

This test provides evidence of the presence of the bacterium, *Aeromonas* species, in feces, in a viable state, and provides an isolate for antibacterial susceptibility testing.

Method Name

Conventional Culture

NY State Available

Yes

Specimen

Specimen Type

Fecal

Additional Testing Requirements

If susceptibility testing is needed, also order ZMMLS / Antimicrobial Susceptibility, Aerobic Bacteria, Varies. If susceptibility testing is not needed (eg, due to lack of recovery of *Aeromonas* species from feces), it will not be performed and the ZMMLS order will be canceled at time of report.

In some cases, local public health requirements may impact Mayo Clinic Laboratories clients, requiring, for example, submission of isolates to public health laboratories. Clients should familiarize themselves with local requirements and are responsible for submitting isolates to appropriate public health laboratories. Clients can obtain isolates of *Aeromonas* species recovered from specimens submitted to Mayo Clinic Laboratories by calling 800-533-1710 as soon as possible after reporting (to ensure viability of the bacterium).

Shipping Instructions

Specimen must arrive within 96 hours of collection.

Necessary Information

Specimen source is required.

Specimen Required

Patient Preparation: Patient should **not** use barium or bismuth for 7 to 10 days before specimen collection.
Supplies: Culture and Sensitivity Stool Transport Vial (T058)
Specimen Type: Preserved feces
Container/Tube: Commercially available transport system specific for recovery of enteric pathogens from fecal specimens (15 mL of non-nutritive transport medium containing phenol red as a pH indicator, either Cary-Blair or Para-Pak C and S)
Specimen Volume: Representative portion of fecal specimen
Collection Instructions:
1. Collect fresh feces and submit 1 gram or 5 mL in container with transport medium.
2. Within 2 hours of collection, place feces in preservative.
3. Place vial in a sealed plastic bag.

Specimen Minimum Volume

1 mL

Reject Due To

ECOFIX preservative; formalin, or PVA fixative	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Fecal	Ambient (preferred)	4 days	
	Refrigerated	4 days	

Clinical & Interpretive

Clinical Information

Diarrhea may be caused by a number of agents, including bacteria, viruses, parasites, and chemicals; these agents may result in similar symptoms. A thorough patient history covering symptoms, severity and duration of illness, age, travel history, food consumption, history of recent antibiotic use, and illnesses in the family or other contacts will help the healthcare provider determine the appropriate testing to be performed.

Aeromonas species are associated with a range of diarrheal presentations including acute secretory diarrhea with vomiting, chronic diarrhea lasting more than 10 days, and traveler's diarrhea. Most cases of *Aeromonas*-associated diarrhea are self-limited and may be managed with supportive therapy (eg, rehydration), but in severe cases or those in patients with a history of immunosuppression, antimicrobial therapy may be considered. Clinical studies have demonstrated differences in antimicrobial susceptibility profiles between *Aeromonas* species, highlighting the importance of both species identification and susceptibility testing for all isolates, particularly in serious infections.

Reference Values

No growth of pathogen

Interpretation

The growth of *Aeromonas* species identifies a potential cause of diarrhea.

Cautions

The yield of *Aeromonas* species is reduced when specimens are delayed in transit to the laboratory (>2 hours from collection for unpreserved specimens).

Check local public health requirements, which may require submission of isolates to a public health laboratory.

Clinical Reference

1. Pillai DR. Fecal culture for aerobic pathogens of gastroenteritis. In: Leber AL, Burnham CD, eds. Clinical Microbiology Procedures Handbook, 5th ed. ASM Press; 2023, Section 3.7.1
2. Pillai DR. Fecal culture for *Campylobacter* and related organisms. In: Leber AL, Burnham CD, eds. Clinical Microbiology Procedures Handbook, 5th ed. ASM Press; 2023, Section 3.7.2
3. DuPont HL. Persistent diarrhea: A clinical review. JAMA. 2016;315(24):2712-2723 doi:10.1001/jama.2016.7833

Performance

Method Description

The fecal specimen is inoculated onto sheep blood agar and cefsulodin-irgasan-novobiocin (CIN) agar. After incubation, suspect colonies are identified using one or a combination of the following techniques: matrix-assisted laser desorption/ionization-time of flight (MALDI-TOF) mass spectrometry, conventional biochemical tests, carbon source utilization, serologic methods, or nucleic acid sequencing of the 16S ribosomal RNA (rRNA) gene. Isolates are reported as *Aeromonas caviae* complex; *Aeromonas hydrophila* complex; or *Aeromonas veronii* complex.(Lamy B, Horneman AJ. *Aeromonas*. In: Jorgensen J, Pfaller M, et al. Manual of Clinical Microbiology. 12th ed. ASM Press; 2019:765-774)

PDF Report
No

Day(s) Performed
Monday through Sunday

Report Available
3 to 5 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 has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information
87046-Aeromonas Culture, Feces-with isolation and preliminary examination
87077-Bacteria Identification (if appropriate)
87153-Aerobe Ident by Sequencing (if appropriate)
87077-Additional Identification Procedure (if appropriate)
87077-Ident by MALDI-TOF mass spec (if appropriate)

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
AERMC	Aeromonas Culture, F	30122-6

Result ID	Test Result Name	Result LOINC® Value
AERMC	Aeromonas Culture, F	30122-6