MAYO CLINIC LABORATORIES

Test Definition: ANIDE

Organism Referred for Identification, Anaerobic Bacteria

Overview

Useful For

Identifying anaerobic bacteria involved in human infections

Reflex Tests

Test Id	Reporting Name	Available Separately	Always Performed
RMALA	Id MALDI-TOF Mass Spec Anaerobe	No, (Bill Only)	No
ANAID	Anaerobe Ident	No, (Bill Only)	No
ISAN	Anaerobe Ident by Sequencing	No, (Bill Only)	No
COMM	Identification Commercial Kit	No, (Bill Only)	No
RMALD	Ident by MALDI-TOF mass spec	No, (Bill Only)	No
GID	Bacteria Identification	No, (Bill Only)	No
ISAE	Aerobe Ident by Sequencing	No, (Bill Only)	No
REFID	Additional Identification Procedure	No, (Bill Only)	No
SALS	Serologic Agglut Method 1 Ident	No, (Bill Only)	No
EC	Serologic Agglut Method 2 Ident	No, (Bill Only)	No
SHIG	Serologic Agglut Method 3 Ident	No, (Bill Only)	No
STAP	Identification Staphylococcus	No, (Bill Only)	No
STRP	Identification Streptococcus	No, (Bill Only)	No
SIDC	Ident Serologic Agglut Method 4	No, (Bill Only)	No
PCRID	Identification by PCR	No, (Bill Only)	No

Testing Algorithm

When this test is ordered, the reflex tests may be performed at an additional charge. All bacterial organisms submitted will be identified and billed as appropriate.

Special Instructions

- Infectious Specimen Shipping Guidelines

Method Name
Dependent on organism submitted, 1 or more of the following methods will be used: Media, Aero Tolerance Testing, Conventional Biochemical Tests, Matrix-Assisted Laser Desorption/Ionization Time-of-Flight (MALDI-TOF) Mass Spectrometry, or 16S RNA Gene Sequencing

NY State Available
Yes

Specimen

Specimen Type
Varies

Ordering Guidance
If susceptibility testing is needed; order MMLSA / Antimicrobial Susceptibility, Anaerobic Bacteria, Minimal Inhibitory Concentration, Varies also. If susceptibilities are not appropriate, MMLSA will be canceled at report time.

Shipping Instructions
1. For shipping information see Infectious Specimen Shipping Guidelines.
2. Place specimen in a large infectious container and label as an etiologic agent/infectious substance, if appropriate.

Necessary Information
1. Specimen source is required.
2. Isolate description is required: Gram stain reaction, morphology, tests performed.

Specimen Required
Specimen Type: Pure culture of organism from a source not normally colonized by anaerobes
Acceptable Sources: Abscesses, percutaneous transtracheal aspirates, sterile body fluids, suprapubic aspirations, or wounds
Supplies:
-Anaerobic Transport Tube (T588)
-Infectious Container, Large (T146)
Container/Tube:
Preferred: Anaerobic transport tube
Acceptable: Thioglycollate broth or any other suitable anaerobic transport system
Collection Instructions:
1. Perform isolation of infecting bacteria.
2. Bacterial organism must be submitted in pure culture, actively growing. **Do not submit mixed cultures.**

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

Agar plate Received frozen	Reject

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)		
	Refrigerated		

Clinical & Interpretive

Clinical Information

Anaerobic bacteria are the greatest component of the human body's normal bacterial microbiota colonizing the skin, oral cavity, and genitourinary and lower gastrointestinal tracts. Their presence is important in promoting vitamin and other nutrient absorption and in preventing infection with disease-causing bacteria.

Anaerobes generally are of low pathogenicity but may possess virulence factors, such as endotoxin or polysaccharide capsules, or produce extracellular toxins. Disease occurs when a large inoculum develops in an area lacking oxygen or with a poor blood supply.

Typical anaerobic infections include peritonitis, abdominal or pelvic abscesses, endometritis, pelvic inflammatory disease, aspiration pneumonia, empyema, lung abscesses, sinusitis, brain abscesses, gas gangrene, and other soft tissue infections. Many *Bacteroides* produce beta-lactamase and are resistant to penicillins and cephalosporins. Imipenem, metronidazole, and clindamycin are effective agents, although resistance to clindamycin is increasing.

Reference Values

Identification of organism

Interpretation

Isolation of anaerobes in significant numbers from well-collected specimens from blood, other normally sterile body fluids, or closed collections of purulent fluid indicates infection with the identified organism.

Cautions

No significant cautionary statements

Clinical Reference

1. Jousimies-Somer HR, Summanen P, Citron DM, et al: Wadsworth Anaerobic Bacteriology Manual. 6th ed. Star Publishing Co; 2002
2. Baron EJ: Approaches to identification of anaerobic bacteria. In: Jorgensen JH, Carroll KC. Funke G, et al, eds. Manual of Clinical Microbiology. 11th ed. ASM Press; 2015:905-908
3. Hall GS: Anaerobic bacteriology. In: Garcia LS, ed. Clinical Microbiology Procedures Handbook. Vol 1. 3rd ed. ASM Press; 2010:section 4
4. Song Y, Finegold SM: *Peptostreptococcus*, *Finegoldia*, *Anaerococcus*, *Peptoniphilus*, *Veillonella*, and other anaerobic cocci. In: Jorgensen JH, Carroll KC. Funke G, et al, eds. Manual of Clinical Microbiology. 11th ed. ASM Press; 2015:909-919
5. Hall V, Copsey SD: *Propionibacterium*, *Lactobacillus*, *Actinomyces*, and other non-spore-forming anaerobic gram-positive rods. In: Jorgensen JH, Carroll KC. Funke G, et al, eds. Manual of Clinical Microbiology. 11th ed. ASM Press; 2015:920-939
6. Stevens DL, Bryant AE, Carroll K: Clostridium. In: Jorgensen JH, Carroll KC. Funke G, et al, eds. Manual of Clinical Microbiology. 11th ed. ASM Press; 2015:940-966
7. Kononen E, Conrads G, Nagy E: *Bacteroides*, *Porphyromonas*, *Prevotella*, *Fusobacterium*, and other anaerobic gram-negative rods. In: Jorgensen JH, Carroll KC. Funke G, et al, eds. Manual of Clinical Microbiology. 11th ed. ASM Press; 2015:967-993

Performance

Method Description
Appropriately transported organisms are inoculated onto blood agar plates and into thioglycollate broth tubes. After 48 hours of incubation at 35 degrees C in an anaerobic atmosphere, colonies are identified using one or a combination of the following techniques: Gram stain, use of various differential media, aero tolerance testing, conventional biochemical tests, matrix-assisted laser desorption/ionization time-of-flight (MALDI-TOF) mass spectrometry, or 16S ribosomal RNA gene sequencing.(Procop, GW, Church DL, Hall GS, et al: The anaerobic bacteria. In: Koneman's Color Atlas and Textbook of Diagnostic Microbiology. 7th ed. Lippincott, Williams and Wilkins; 2017:chap 16)

PDF Report
No

Day(s) Performed
Monday through Sunday

Report Available
8 to 14 days

Specimen Retention Time
30 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

87076-Organism ref for ID, anaerobic bact
87076-Id MALDI-TOF mass spec anaerobe (if appropriate)
87076-Anaerobe Ident (if appropriate)
87153-Anaerobe ident by sequencing (if appropriate)
87077-Identification commercial kit (if appropriate)
87077-Ident by MALDI-TOF mass spec (if appropriate)
87077-Bacteria identification (if appropriate)
87077-Additional identification procedure (if appropriate)
87077-Identification Staphylococcus (if appropriate)
87077-Identification Streptococcus (if appropriate)
87147 x 3-Serologic agglut method 1 ident (if appropriate)
87147-Serologic agglut method 2 ident (if appropriate)
87147 x 4-Serologic agglut method 3 ident (if appropriate)
87147 x 2-6-Serologic Agglut Method 4 Ident (if appropriate)
87153-Aerobe ident by sequencing (if appropriate)
87798-Identification by PCR (if appropriate)

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
ANIDE	Organism Ref for ID, Anaerobic Bact	20878-5

Result ID	Test Result Name	Result LOINC® Value
ANIDE	Organism Ref for ID, Anaerobic Bact	20878-5