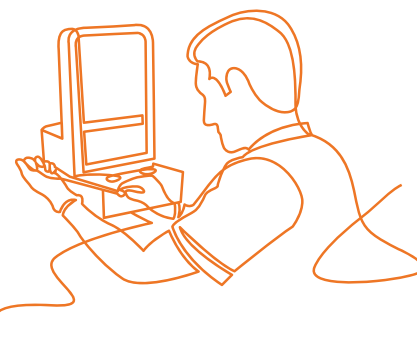


ARES^{iss}

Isolate Sequencing Service & Analysis

Whole Genome Sequencing (WGS) for Microbiology and Infection Prevention & Control

Accurate, comprehensive and relevant genomic data from microbial isolates. Powered by **ARES** technology



Bacterial isolates or DNA



Extraction / library prep / QC



Sequencing



Data interpretation



Reporting



Data archive

END TO END SERVICE from isolate to analysis report

- ✓ Validated SOPs for accurate and reproducible results¹
- ✓ Comprehensive isolate reports
- ✓ Easy and rapid cluster analysis for outbreak detection
- ✓ Rapid turnaround time
- ✓ Sample collection and transport kit available

Isolate collection and shipping is made easy with the **ARES^{iss}** Collection Kit



Sequence with **ARES^{iss}** and manage your projects with **ARES^{cloud}** software:

- Track progress
- View & manage reports
- Conduct analysis
- Securely store reports and data

US Sequencing Lab

Email: sequencing@opgen.com

Phone: 301-869-9683

Location: Rockville, Maryland, USA

EU Sequencing Lab

Email: sequencing@opgen.com

Phone: +43 (0)1 361 8880

Location: Vienna, Austria

AI-powered Precision Analytics for Outbreak Analysis and Pathogen Genomics

Genomic Characterization of Pathogens

- Identification and typing – MLST, cgMLST
- Plasmid profiling
- Antibiotic resistance marker profiling
- Virulence marker profiling

ARESsis Report

For Research Use Only

Sample Information

Sample ID ARLG-1316
 Laboratory ID ARLG-1316
 Sample Type Isolate
 Received on Sat Aug 13 2022
 Reported on Sat Aug 13 2022

Order Information

Reference Isolate Profiling
 Ordered on Sat Aug 13 2022
 Ordered by Theo deVos
 Address Ares Genetics, Ok

Test Results

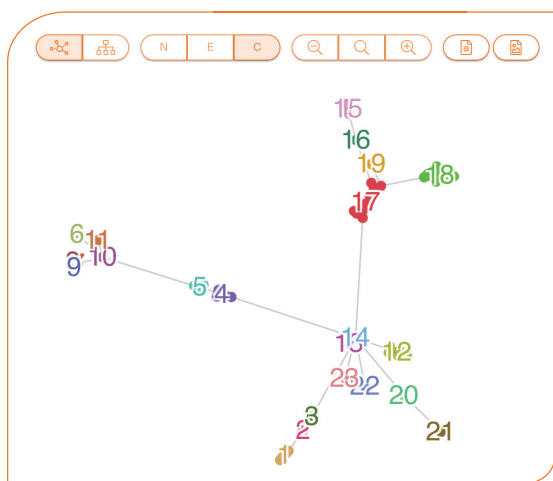
Microorganisms Identified

Acinetobacter baumannii 96.62% Passed
 Microorganism Reads On-Target Quality Control

Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales; Moraxellaceae; Acinetobacter; Acinetobacter calcoaceticus/baumannii complex; Acinetobacter baumannii

Microbial Typing

25 abumannii_2 MLST
 Sequence Type Scheme Method



Outbreak Analysis – Identify and Track HAIs

- Cluster analysis of sequenced isolates
- Minimum spanning trees / dendrograms
- Comparison tables of Isolate features
- Integration of metadata

Genomic Antimicrobial Susceptibility Testing (AST)

- Genomic AST profiles based on AI/ML algorithms
- Individual and aggregate genomic antibiograms

Antimicrobial Susceptibility Testing

Panel: Acinetobacter CP CR

Compound Class	Compound	Interpretive Category	Guideline Breakpoints	Actions	Details
<input checked="" type="checkbox"/> Aminoglycosides	<input checked="" type="checkbox"/> Amikacin	Susceptible	S ≤ 16 µg/ml R > 32 µg/ml	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Aminoglycosides	<input checked="" type="checkbox"/> Tobramycin	Resistant	S ≤ 4 µg/ml R > 8 µg/ml	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Carbapenems	<input checked="" type="checkbox"/> Doripenem	Resistant	S ≤ 2 µg/ml R > 4 µg/ml	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Carbapenems	<input checked="" type="checkbox"/> Imipenem	Resistant	S ≤ 2 µg/ml R > 4 µg/ml	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Carbapenems	<input checked="" type="checkbox"/> Meropenem	Resistant	S ≤ 2 µg/ml R > 4 µg/ml	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Cephalosporins (3rd)	<input checked="" type="checkbox"/> Ceftriaxone	Resistant	S ≤ 8 µg/ml R > 32 µg/ml	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Penicillin Combinations	<input checked="" type="checkbox"/> Ampicillin / Sulbactam	Resistant	S ≤ 8 µg/ml R > 16 µg/ml	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Tetracyclines	<input checked="" type="checkbox"/> Minocycline	Susceptible	S ≤ 4 µg/ml R > 8 µg/ml	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Trimethoprim Combinations	<input checked="" type="checkbox"/> Sulfamethoxazole / Trimethoprim	Resistant	S ≤ 2 µg/ml R > 2 µg/ml	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Get in touch sequencing@opgen.com