

Healthcare • Hospitality • Commercial • Government • Manufacturing



Legionella Testing Services

Faster. More Accurate. More Comprehensive.



Potable Water | Utility Water



Phigenics
Validation Test®

Phigenics *Legionella* Testing Services for Validation of Water Management Programs



Phigenics Analytical Services Laboratory (PASL) provides comprehensive *Legionella* testing for all water systems found in commercial, institutional, and industrial facilities. PASL delivers the fastest and most accurate *Legionella* testing results by applying the Phigenics patented **PVT TimeZero™** test method for quantitative measurement of viable *Legionella* and Total Heterotrophic Aerobic Bacteria (THAB) as well as the **PVT Next Day LegiPlex™ PCR** which delivers rapid results that confirm the serogroup of *Legionella* within building water systems.

Benefits

Compared to other methods, the Phigenics Validation Test® (PVT) using TimeZero™ method is:

Faster because culturing occurs at “time zero” (t = 0) and results are typically communicated 4 days after sampling in the field.

More Accurate because variations due to changes in water samples during shipment are entirely eliminated.

More Comprehensive because *Legionella* bacteria and Total Heterotrophic Aerobic Bacteria (THAB) are obtained from the same sample with one protocol.

Compared to other methods, the PVT Next Day LegiPlex™ PCR is:

Faster because molecular results of the type of *Legionella* present in a water sample are available the next day after receipt to lab.

More Accurate because PVT Next Day LegiPlex™ PCR, when used as a negative screen, has a >99% negative predictive value.

More Comprehensive because of increased molecular identification of *Legionella pneumophila* sg 1, *Legionella pneumophila* sg 2-15, and *Legionella* genus.

PVT Next Day LegiPlex™ PCR



Delivers rapid results by providing the serogroup of *Legionella* present in a water sample the day after sampling. LegiPlex™ is a simultaneous multi-reaction (multiplex) real-time PCR for the detection of *Legionella pneumophila* sg 1, *Legionella pneumophila* sg 2-15, and *Legionella* genus. This industry-leading assay meets the methodological, performance, and quality control requirements outlined by the International Standards Organization (ISO), achieving ISO 12869:2019 compliance for a limit of detection and specificity. **PVT Next Day LegiPlex™ PCR** provides building owners with critical data about the safety of their water systems, allowing them to make defensible decisions.

Thorough Analytical Reporting, Digital Imaging, and a Chain of Custody



Digital Image Record

- Results at next day, 4 days, and 11 days
- Microbial growth
- ID labels to establish a chain of custody

Location Identification: Name of Collector: J. Smith
Contact email: jsmith@gmail.com

Phigenics Validation Test PREMIUM Analytical Report
Method Used: Next Day LegiPlex PCR™, TimeZero™, and Standard ISO 11731 Spread Plate

Sample Information: Sample ID: 1000, Date of Collection/Inoculation: 2017/01/01, Date of Plating: 2017/01/02, Date of Analysis: 2017/01/02

Total Heterotrophic Aerobic Bacteria: 10³ CFU/ml

Legionella Test Results: Legionella: 7 CFU, THAB: ND, Standard ISO 11731: ND

Legionella Count: 7 CFU

THAB Count: ND

Standard ISO 11731 Count: ND

Phigenics Validation Test PREMIUM Analytical Report Summary

Method Used: Next Day LegiPlex PCR™, TimeZero™, and Standard ISO 11731 Spread Plate

Legionella Count: 7 CFU

THAB Count: ND

Standard ISO 11731 Count: ND

| Sample ID | Date of Collection/Inoculation | Date of Plating | Date of Analysis | Test Results |
|-----------|--------------------------------|-----------------|------------------|---------------|
| 1000 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1001 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1002 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1003 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1004 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1005 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1006 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1007 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1008 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1009 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1010 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1011 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1012 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1013 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1014 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1015 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1016 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1017 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1018 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1019 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |
| 1020 | 2017/01/01 | 2017/01/02 | 2017/01/02 | 7 CFU, ND, ND |

Comprehensive Summary for all samples submitted in one easy-to-read table

Phigenics *Legionella* Tests with TimeZero™ and NextDay LegiPlex™ PCR



PVT PREMIUM includes TimeZero™ test method for *Legionella* species and THAB, Next Day LegiPlex™ PCR, and the Standard *Legionella* 11731 ISO spread plate culture method.










PVT SELECT includes TimeZero™ test method for *Legionella* species and THAB and Next Day LegiPlex™ PCR.

Phigenics *Legionella* Testing Services

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Phigenics Validation Tests

| Attribute |  PVT PREMIUM Phigenics Validation Test® |  PVT SELECT Phigenics Validation Test® |  PVT TimeZero™ Phigenics Validation Test® |  PVT TimeZero™ Phigenics Validation Test® |  PVT Next Day LegiPlex™ PCR Phigenics Validation Test® |  PVT Standard ISO Phigenics Validation Test® |  PVT THAB Phigenics Validation Test® |
|---|---|--|---|--|--|--|--|
| Product Number | MB-210 | MB-600 | MB-300 | MB-100 | MB-1410 | MB-1010 | MB-400 |
| Culture inoculated at TimeZero™ (t=0) | ✓ | ✓ | ✓ | ✓ | ⊘ | ⊘ | ✓ |
| Utilizes PVT Next Day LegiPlex™ PCR | ✓ | ✓ | ⊘ | ⊘ | ✓ | ⊘ | ⊘ |
| Time Required to Receive Reports* | Next Day / 4 Days / 11 Days | Next Day / 4 Days | 4 Days / 11 Days | 4 Days | Next Day | 11 Days | 4 Days |
| Limit of Detection (CFU/mL) | 1** | 10 | 1** | 10 | ~1 | 1** | 100 |
| Differentiates <i>L. pneumophila</i> SG 1, <i>Lp</i> SG 2-14, and <i>Legionella</i> Species | ✓ | ✓ | ✓ | ✓ | ⊘ | ✓ | ⊘ |
| Reports Next Day Molecular Marker Negative Screen | ✓ | ✓ | ⊘ | ⊘ | ✓ | ⊘ | ⊘ |
| Measures Total Heterotrophic Aerobic Bacteria (THAB) | ✓ | ✓ | ✓ | ✓ | ⊘ | ⊘ | ✓ |
| Conforms to ISO 11731 Spread Plate Culture Method | ✓ | ⊘ | ✓ | ⊘ | ⊘ | ✓ | ⊘ |

*From sample in the field

**The practical limit of quantification according to the results published by the CDC is about 10 CFU/mL



Phigenics Laboratory Certifications

Phigenics Analytical Services Laboratory (PASL) is certified as proficient in the Environmental *Legionella* Isolation Techniques Evaluation (ELITE) program administered by the Centers for Disease Control and Prevention (CDC) for using the Phigenics Patented TimeZero™ test method and the ISO 11731 spread plate method. PASL has passed every proficiency test since the beginning of the CDC ELITE program. PASL is a New York State ELAP-certified laboratory for the analysis of potable and non-potable water and provides a wide range of other testing services for microbial hazards such as *Pseudomonas*, *Stenotrophomonas*, *Acinetobacter*, *Mycobacterium*, *Aspergillus*, and *Fusarium*. PASL also provides complete testing services required by the Safe Drinking Water Act.

Phigenics Analytical Services Laboratory

Call us today at 844.850.4087 or go to www.phigenics.com/testing

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