



Four peer-reviewed studies highlight Legiolert advantages

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Comparisons to ISO-11731, CDC Method, and SM 9260J

- Potable and nonpotable water samples
- 2 studies by independent laboratories in Germany
- 2 studies by independent laboratories in the U.S.
- 4,075 samples analyzed

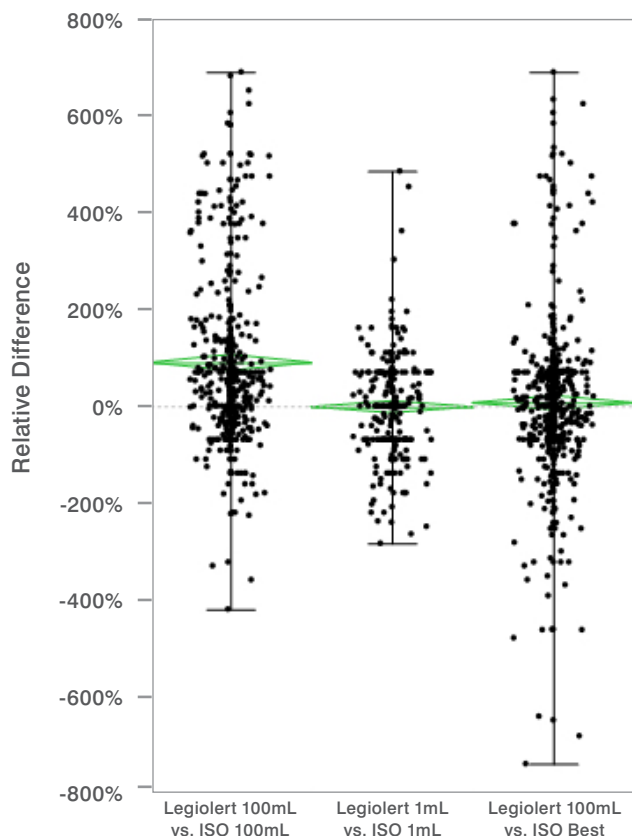
“The new method (Quanti-Tray®/Legiolert® represents a significant improvement in the enumeration of *L. pneumophila* from drinking water and related samples.”

Spies, et al., International Journal of Hygiene & Environmental Health (2018)

Legiolert was as or more sensitive for potable water testing

More sensitive than ISO-11731¹

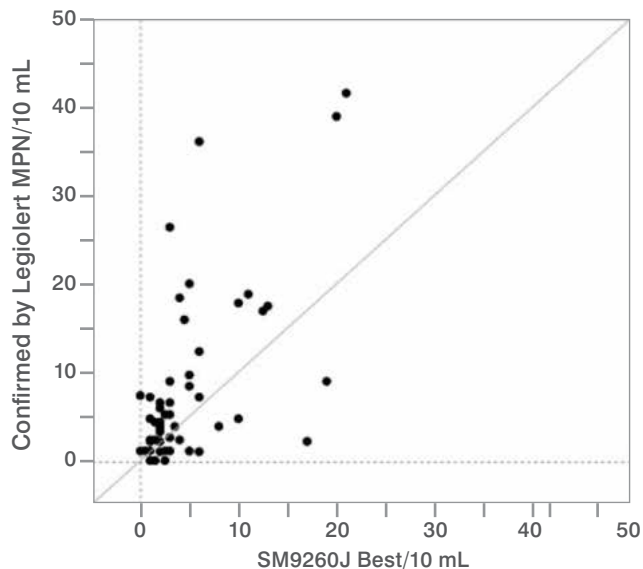
For 100 mL samples*



Legiolert vs. ISO-11731 Best: Mean Relative Difference = + 6.6%

More sensitive than SM 9260J³

For 10 mL samples



Legiolert vs. SM 9260J Best: Wilcoxon Signed Rank Test = prob > |S| = < 0.0001, significance level = 0.05

“The Quanti-Tray/Legiolert method is labour-saving, simple to conduct and is a significant development in the reliability of testing for *L. pneumophila* in drinking water.”

Spies, et al., International Journal of Hygiene & Environmental Health (2018)

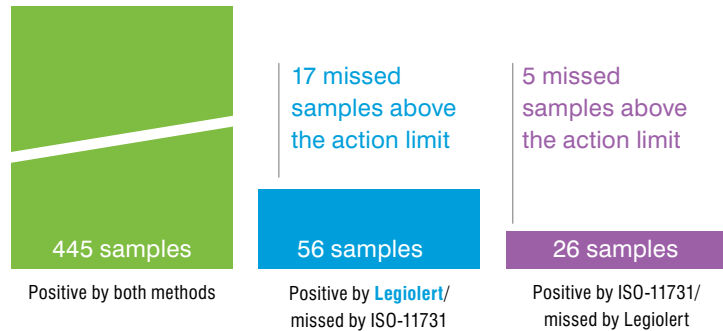
*When analyzed according to ISO-17994, 100 mL was more sensitive. Comparison of Legiolert® to the 1 mL test volume was “inconclusive” due to requiring 10,660 additional samples for a reliable assessment.

Legiolert was less likely to give false negative results in potable water

Legiolert® found as many *Legionella* as ISO-11731 in the same samples, but all of them were the highly pathogenic *Legionella pneumophila*

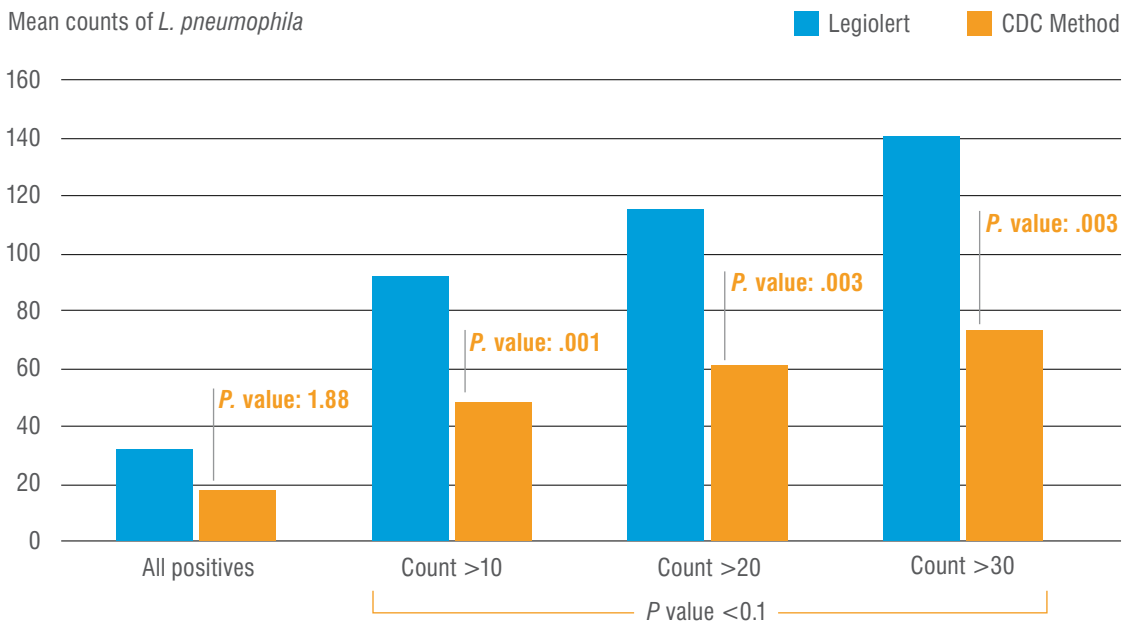
Legiolert detection of only *L. pneumophila* was not statistically different compared to detection of all *L. spp* by ISO-11731-1/2¹

ISO-11731-1/2 was twice as likely to miss *L. pneumophila* as Legiolert



In nonpotable water, Legiolert was more sensitive for samples with higher concentrations of *L. pneumophila*

Relative to CDC Method of Nonpotable Water



Researchers found Legiolert offered multiple advantages

- ✓ Better performance
- ✓ Ease of use
- ✓ 50% less time required to perform

“Legiolert (is) particularly advantageous for routine monitoring of nonpotable water systems.”⁴

Rech, et al., Current Microbiology (2018)

References

1. Spies K, Pleischl B, Lange B, et al. Comparison of the Legiolert™/Quanti-Tray® MPN test for the enumeration of *Legionella pneumophila* from potable water samples with the German regulatory requirements methods ISO 11731-2 and ISO 11731. *Int J Hyg Environ Health*. 2018;221(7):1047-1053. Full text at <https://www.sciencedirect.com/science/article/pii/S1438463917306818>.
2. Sartory DP, Spies K, Lange B, Schneider S, Lange B. Evaluation of a most probable number method for the enumeration of *Legionella pneumophila* from potable and related water samples. *Lett. Appl. Microbiol*. 2017; 64(4):271-275.
3. Petrisek R, Hall J. Evaluation of a most probable number method for the enumeration of *Legionella pneumophila* from North American potable and nonpotable water samples. *J Water Health*. 2018;16(1):25-33.
4. Rech M, Swalla B, Dobanic J. Evaluation of Legiolert for Quantification of *Legionella pneumophila* from Non-potable Water. *Curr Microbiol*. 2018;75(10):1282-1289.

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