T2Resistance™ Panel
Powered by T2MR® technology

Addressing the unmet clinical need for faster detection of antimicrobial resistance.

The T2Resistance Panel is the first and only direct-from-whole-blood assay that detects gram-negative and gram-positive resistance genes in **3 to 5 hours**.

The growing threat of resistant bloodstream infections

Antibiotic resistance is recognized by the World Health Organization (WHO) as 'one of the biggest threats to global health, food security, and development today'.

- Current diagnostics are ill-equipped to deal with this threat as they require a positive blood culture — which takes 1 to 5 or more days – before subculture and antimicrobial susceptibility testing (AST) or genomic testing can be performed.
- Additionally, it can take up to 4 blood culture sets to detect what T2 Magnetic Resonance Technology (T2MR) can detect in a single blood draw.

*The T2Resistance Panel expected to be available for research use only (RUO) in the U.S. and CE marked by the end of 2019.
**A combination of samples was run in both the prospective and contrived arms of the study. T2Bacteria showed an overall average sensitivity of 90% in the prospective arm of the study, with an overall average PPA of 97% in the contrived arm of the study.

T2Dx® Instrument

- LoD as low as 1 CFU/mL
- Easy to operate
- Minimal hands-on time
- Results in 3 to 5 hours

COMING SOON!

T2Resistance™ Panel*

Gram-negative species	Gram-positive species
• KPC	• *vanA/B*
• OXA-48	• *mecA/C*
• NDM/VIM/IMP	
• CTX-M 15/14	
• AmpC(CMY/DHA)	

T2Bacteria® Panel

95.8% Sensitivity** | 98.2% Specificity[1]

- *Enterococcus faecium*
- *Staphylococcus aureus*
- *Klebsiella pneumoniae*
- *Acinetobacter baumannii*
- *Pseudomonas aeruginosa*
- *Escherichia coli*

T2Candida® Panel

91.1% Sensitivity | 99.4% Specificity[2]

- *Candida albicans*
- *Candida tropicalis*
- *Candida krusei*
- *Candida glabrata*
- *Candida parapsilosis*

T2Resistance Panel

Accelerated identification to combat antibiotic resistance

Direct-from-blood rapid diagnostics have the potential to prevent the spread of multidrug-resistant organisms and improve patient outcomes by enabling rapid identification of the genes and species associated with antibiotic resistance – enabling the reduction of unnecessary antibiotic use which is the cause of resistance in the first place. Most importantly, these tests can enable more patients to get on the right targeted therapy quicker, potentially reducing mortality and hospitalization cost. Finally, these tests could also be used to accelerate clinical trials for new antibiotics and reduce the time to commercial availability.

T2MR Technology

The Panel utilizes the same T2Dx® Instrument as the T2Bacteria® and T2Candida® Panels – the first and only FDA-cleared and CE-marked panels for detection of sepsis-causing bloodstream infections direct from a patient's blood sample, without requiring blood culture results.

Who might benefit from T2Resistance™ Panel?

- High risk patients/patients selected to use last line antibiotics
- Patients who are part of a stewardship program
- Patients with history of antibiotic use
- Patients not responsive to current therapy
- Patients who are immunocompromised

To learn more about the T2Resistance Panel email info@t2biosystems.com or visit www.t2biosystems.com

Kits available for Research Use Only

1. Nguyen, M. H., et al. (In press). Performance of the T2Bacteria Panel for Diagnosing Bloodstream Infections. A Diagnostic Accuracy Study.

2. Mylonakis, E., Clancy, C. J., Ostrosky-Zeichner, L., Garey, et. al. (2015). T2 magnetic resonance assay for the rapid diagnosis of candidemia in whole blood: a clinical trial. Clinical Infectious Diseases, 60(6), 892-899.

Please check regulatory status in your country.

T2 Biosystems®

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