

## **VERIGENE®**

The VERIGENE® System | Enabling Better Care. Today.

# VERIGENE® Gram-Negative Blood Culture Nucleic Acid Test (BC-GN)



VERIGENE® BC-GN is a qualitative multiplexed *in vitro* diagnostic test performed on the VERIGENE System, that rapidly identifies genus, species, and genetic resistance markers for a broad panel of gram-negative bacteria directly from positive blood culture bottles.

While conventional microbiological methods may require 2 to 4 days to produce bacterial identification and susceptibility results, VERIGENE BC-GN provides results within 2 hours of blood culture positivity. Features include:

- Automation with a sample to result system
- An on-demand and scalable workflow
- Fast time to results, with <5 minutes hands-on time and <2 hours run time</li>

While in this retrospective analysis we cannot definitively assert that the decrease in 30-day mortality is a direct result of the BC-GN test being implemented, the trend towards more timely administration of effective antibiotic therapy, significantly decreased length of stay in the ICU, and significantly fewer deaths associated with MDR organisms suggests that more rapid identification of gram-negative organisms and major resistance mechanisms played an important role.

Walker T, Dumadag S, Lee CJ, et al.1

#### **VERIGENE® BC-GN**

#### **Species**

Escherichia coli\*

Klebsiella oxytoca

Klebsiella pneumoniae

Pseudomonas aeruginosa

#### Genus

Acinetobacter spp.

Citrobacter spp.

Enterobacter spp.

Proteus spp.

#### Resistance

CTX-M (ESBL)

IMP (carbapenemase)

KPC (carbapenemase)

NDM (carbapenemase)

OXA (carbapenemase)

VIM (carbapenemase)

<sup>\*</sup> BC-GN will not distinguish Escherichia coli from Shigella spp. (S.dysenteriae, S. flexneri, S. boydii, and S. sonnei).

#### **Performance**

#### VERIGENE® BC-GN Performance vs. Reference Methods2

Target	Positive Agreement (%)	Negative Agreement (%)
Species (n=1412)		
Escherichia coli*	99.8	99.4
Klebsiella oxytoca	92.2	99.6
Klebsiella pneumoniae	93.1	100
Pseudomonas aeruginosa	97.6	100
Genus (n=1412)		
Acinetobacter spp.	98.2	99.9
Citrobacter spp.	100	99.9
Enterobacter spp.	97.6	99.4
Proteus spp.	100	99.9
Resistance (n=1266)		
CTX-M (ESBL)	98.7	99.9
IMP (carbapenemase)	100	100
KPC (carbapenemase)	100	100
NDM (carbapenemase)	100	100
OXA (carbapenemase)	95.3	99.9
VIM (carbapenemase)	100	100

<sup>\*</sup> BC-GN will not distinguish Escherichia coli from Shigella spp. (S.dysenteriae, S. flexneri, S. boydii, and S. sonnei).

#### **Usage**

VERIGENE® BC-GN is indicated for use in conjunction with other clinical and laboratory findings to aid in the diagnosis of bacterial bloodstream infections; however, it is not used to monitor these infections. See the Package Insert for more information.

#### **Ordering Information**

Product Name	Part Number
VERIGENE® Gram-Negative Blood Culture Nucleic Acid Test (BC-GN) Kit Includes: 20 BC-GN Test Cartridges 20 Extraction Trays	20-005-021
VERIGENE® Gram-Negative Blood Culture Nucleic Acid (BC-GN) Utility Kit Includes: 20 BC-GN Utility Trays	20-012-021

#### References

- 1. Walker T, Dumadag S, Lee CJ, et al. Clinical impact of laboratory implementation of VERIGENE BC-GN microarray-based assay for detection of gram-negative bacteria in positive blood cultures. J Clin Microbiol 2016 Jul;54(7):1789 - 96.
- 2. VERIGENE Gram-Negative Blood Culture Nucleic Acid Test (BC-GN) Package Insert (027-00039-01).



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For In Vitro Diagnostic Use. Products are region specific and may not be approved in some countries/regions. Please contact Luminex at support@luminexcorp.com to obtain the appropriate product information for your country of

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