

VINTAGE MEETS CUTTING-EDGE

Proactive monitoring of wine spoilers
from grape to glass



Your Trusted Partner in Augmented Diagnostics

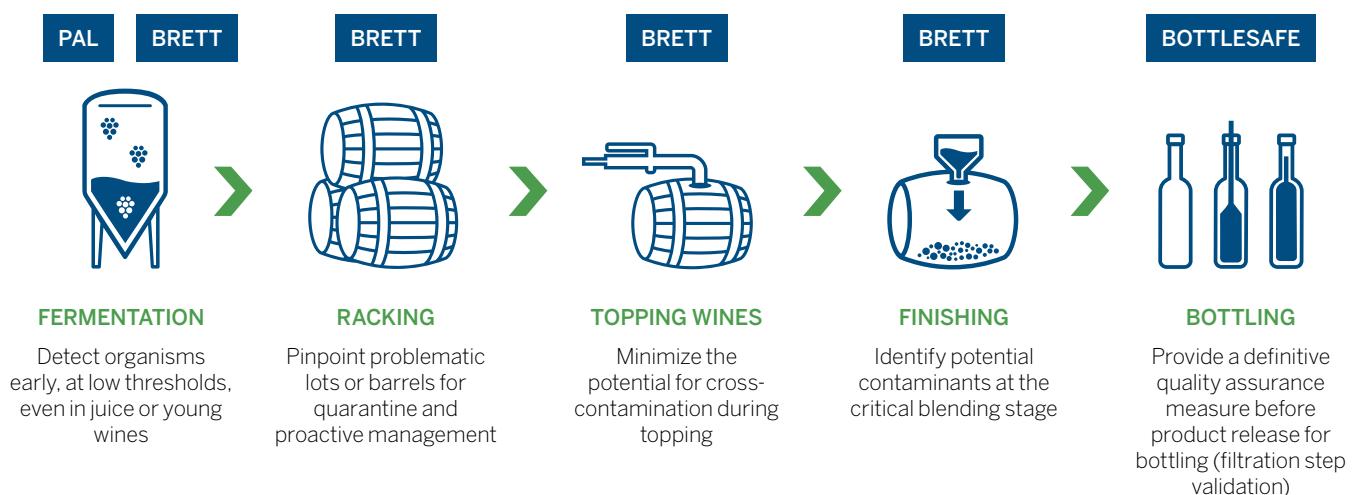


Truly Sophisticated Detection Developed with Wine Makers

Every winemaker knows that some things get better with age. But for many of the microbes that can spoil wine, the longer they go undetected, the more harm they can cause. During harvest season, the time is especially ripe for unwanted organisms to make their way into the winery and flourish in tanks and barrels left unchecked, these spoilers can bring wine quality down along with the reputation of your winery. **Early detection is critical to protect the lifeblood of your business.**

Introducing VINOBRETT™, VINOPAL™ and BOTTLESAFE™ powered by VERIFLOW™

Together, these advanced diagnostic technologies make it possible to conduct routine, **proactive testing throughout the wine-making process** to obtain accurate information about the presence of spoilage organisms **to prevent costly remediation and preserve quality and value.**



VINOBRETT™ FOR *BRETTANOMYCES*

- Detects and quantifies both active and VBNC *Brettanomyces*
- **100% inclusive of 49 known isolates of *Brettanomyces bruxellensis***
- Accurate and sensitive across all stages from harvest to bottling
- Ability to isolate tainted lots early to manage the presence of *Brettanomyces* and minimize the risk of cross-contamination

VINOBRETT PERFORMANCE SPECIFICATIONS	
Sensitivity (LOD)	10 cells/mL
Time to results	< 4 hours
Matrix compatibility	Juice, wine, lees, barrel rinsate, colony PCR, enrichment broth
Assay configuration	Qualitative and quantitative
Target selection	Ribosomal Deoxyribonucleic Acid (rDNA) gene
Specificity	<i>Brettanomyces bruxellensis</i>
	Active state and VBNC state (Viable But Non-Culturable)

“ Early in-house Brett monitoring in wines during and just after fermentations, which was impossible to do before, allows us to effectively mitigate issues and avoid potential problems later in the process. ”

- **Tod Mostero**, *Winemaker*
Dominus Estates



VINOPAL™ FOR *PEDIOCOCCUS* & *LACTOBACILLUS*

- Identifies and quantifies the presence of *Lactobacillus* and *Pediococcus* species that can contribute to stuck or sluggish fermentations
- Accurate and sensitive to spoilage organisms even at low threshold levels **in grape juice and young wines**
- Enables prompt response to rapidly-producing bacteria that can impact wine quality

VINOPAL™ PERFORMANCE SPECIFICATIONS

Sensitivity (LOD)	10-100 cfu/mL
Time to results	< 3 hours
Matrix compatibility	Wine, colony PCR, enrichment broth
Assay configuration	Qualitative and quantitative
Target selection	Ribosomal Deoxyribonucleic Acid (rDNA) gene
Specificity	<i>Lactobacillus</i> species: L. fructivorans, L. backii, L. brevis, L. buchneri, L. hilgardii, L. kunkeei, L. Lindneri, L. mail, L. nagelli, L. oeni, L. paracollinoides, L. rhamnosus, L. vini <i>Pediococcus</i> species: <i>P. damnosus</i> , <i>P. inopinatus</i> , <i>P. pentosaceus</i>



“ Identifying the presence of *Lactobacillus* as soon as possible is a critical concern for me. Early detection with VINOPAL™ will allow us to intervene quickly and prevent the loss of wine quality. ”

- Eric Baugher, Vice President of Winemaking
Ridge Vineyards

BOTTLESAFE™ FOR FERMENTATIVE YEAST, ACETIC ACID AND LACTIC ACID BACTERIA

- Detects both active and VBNC (Viable But Non-Culturable) yeast and bacteria
- Demonstrates equivalent sensitivity as 3rd party lab sophisticated methods
- **Prevents from undesirable microorganisms growing in packaged wine**

VERIFLOW™ BOTTLESAFE™ YEAST & BACTERIA PERFORMANCE SPECIFICATIONS

Sensitivity (LOD)	10 CFU/mL
Time to results	< 4 hours
Matrix compatibility	Red and white wine, post-filtration wine
Assay configuration	Qualitative
Target selection	Yeast: Ribosomal Deoxyribonucleic Acid (rDNA) gene Bacteria: Ribosomal Deoxyribonucleic Acid (rDNA) gene
Specificity	Yeast: <i>Saccharomyces cerevisiae</i> , <i>Dekkera</i> , <i>Schizosaccharomyces</i> , <i>Zygosaccharomyces</i> , <i>Saccharomycodes ludwigii</i> Bacteria: <i>Acetobacter</i> , <i>Gluconobacter</i> , <i>Oenococcus oeni</i> , <i>Pediococcus</i> , <i>Lactobacillus</i>

CLASSIC REVOLUTION

Classic microbiological testing, including culturing, requires long wait times with inconclusive results. Current molecular technologies, such as RT-PCR, are capital and labor-intensive to implement at the winery. All current methods have difficulty analyzing wines.

bioMérieux has the solution.

VINOBRETT™, VINOPAL™ and BOTTLESAFE™ combines proven diagnostic principles with **innovative, proprietary PCR technology to enable accurate, rapid, and early detection of common wine spoilers.**



FAST

On-site analysis in less than 4 hours



PRECISE

Accurate and sensitive to targeted microbes even at low thresholds in juice and young wines



ECONOMICAL

Affordable, early detection minimizes negative impacts on wine which saves you time and money



EASY

Sample prep is simple, with minimal training required



MORE REAL WORLD RESULTS

“Because we can now detect the presence of low levels of Brett before it synthesizes 4 ethyl phenol above the sensory threshold, we can manage the impact of Brett. The kit is easy to use, demands less technician time, and the startup cost is less than traditional PCR.”

-Lynn Watanabe, Laboratory Director/Winemaker - Oakville Winery and Napa Wine Company (USA)

“The VINOBRETT solution on VERIFLOW is a great tool for me in the laboratory because it helps me in a short time to know if the preventive protocols against the development of Brettanomyces are having the desired effect and, in case of deviation, it allows us to act quickly to solve it.”

-Luis Cuadrado, Winemaker - VEGA REAL Winery - Barbadillo Group (Spain)

“Thanks to VERIFLOW we can now have results and make decisions in a short period of time, optimizing our work and performing only the necessary treatments, but at the same time remaining assured, knowing that we are avoiding the appearance of undesirable aromas in our wines.”

-Raquel de Blas Abad, Laboratory manager - PROTOS Winery (Spain)

“VERIFLOW is easy to use and provides a quick response on the presence and quantity of Brettanomyces in the tested wine samples. It is also a very useful tool for verifying whether a colony grown on the culture media is really Brett or another yeast with similar morphology, making the monitoring of our wines more punctual and effective.”

-Chiara Giusti, Quality Control Analyst - MARCHESI FRESCOBALDI (Italy)

“We rely on VERIFLOW for regular and precise control of possible Brettanomyces contamination before, during and after our wines' passage through barrels and wood. Proactive control allows us to solve these problems in advance, avoiding the use of expensive curative products and reducing the use of SO₂, especially on red varieties with higher pH.”

-Thomas Scarizuola, Cellar master Onologist - KELLEREI KALTERN (Italy)

Find the right solution by speaking with one of our microbiology experts today.

For more information on our proven diagnostic principles for microbial detection, visit biomerieux-industry.com.