

BIOMÉRIEUX

# VITEK® 2

## Microbiology with confidence



PIONEERING DIAGNOSTICS

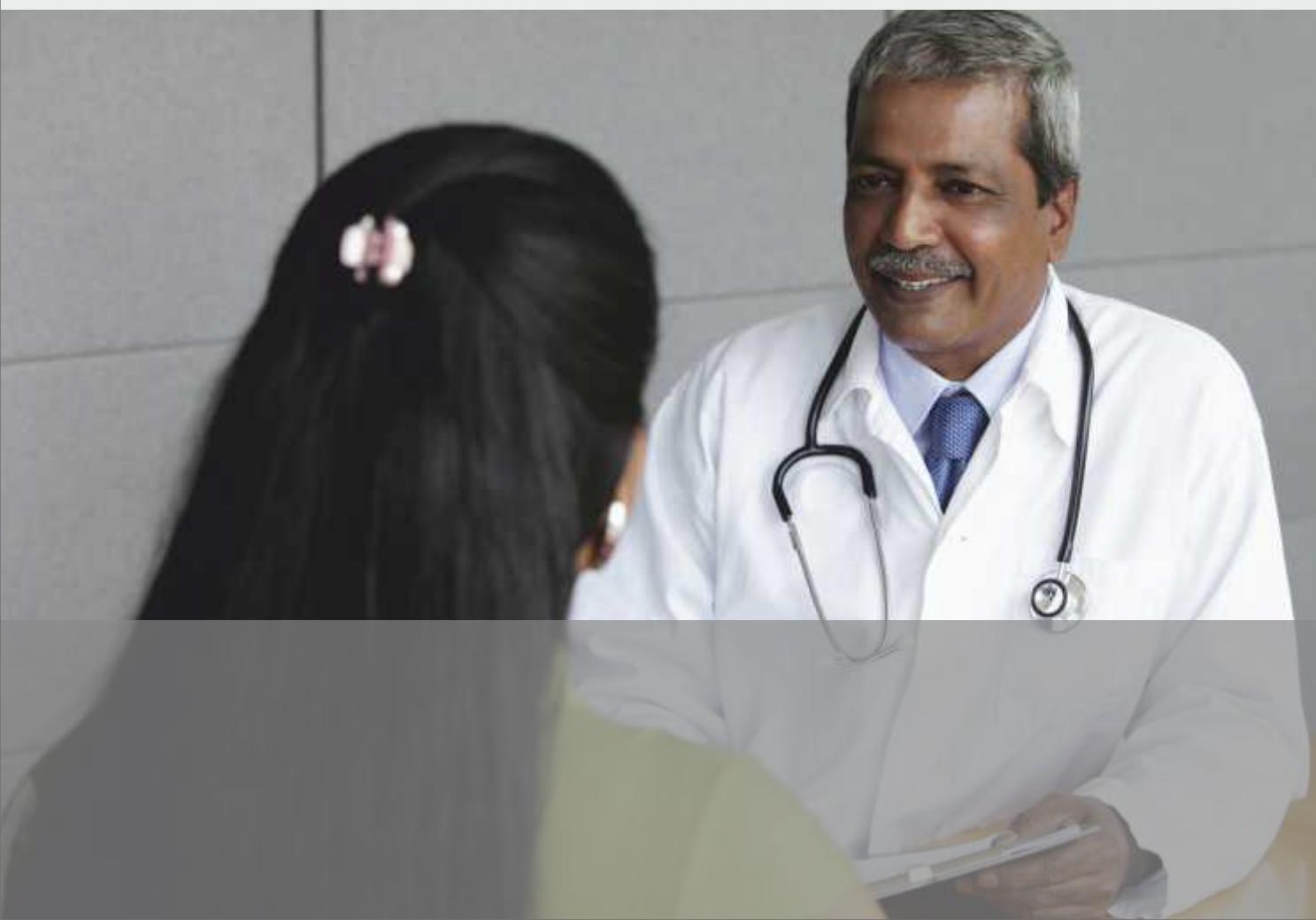
# IMPROVED PATIENT OUTCOMES

You are faced with an upsurge in bacterial resistance making its detection more complex. Studies show that providing rapid identification and antibiotic susceptibility (ID/AST) results leads to improved patient and financial outcomes.<sup>2,9,10</sup>

Faster and more accurate results contribute to improved patient management, reducing the number of diagnostic tests, the length of hospitalisation and all associated costs.<sup>1,2,9,10,13</sup>

• • •

Having a rapid, reliable solution helps to improve patient outcomes, and is the reason why the **VITEK® 2** is the most widely used ID/AST system globally.



# VITEK® 2

## Susceptibility Testing Made Simple

### Automated Validation of Every Result

VITEK® 2 technology represents a smarter way to automate ID/AST testing. It provides rapid, automatic, standardised validation of every test result with next generation expert software, the ADVANCED EXPERT SYSTEM<sup>2,3,9,10</sup>.

VITEK® 2 is a unique system that uses a phenotypic expert system instead of commonly used rules-based expert systems which are incapable of recognizing unusual results (i.e. mixed cultures) and new resistance phenotypes for which no rules exist. As a result, microbiologists need to review every single result for rules-based systems, even the vast majority that do not trigger any rules.

#### RESULTS YOU CAN TRUST

The VITEK® 2 ADVANCED EXPERT SYSTEM software is like having an expert advisor standing by your side<sup>3,15,17</sup>. It applies a colored indicator to each isolate that shows the level of confidence in the susceptibility results:

	<b>Green</b>	: Fully consistent results
	<b>Yellow</b>	: Inconsistent result, review required
	<b>Red</b>	: Unknown phenotype, check results
	<b>Purple</b>	: Phenotype not in database

Microbiologists can quickly and confidently report the majority of results to clinicians, and focus their attention on only those that require their expertise<sup>13</sup>.

#### PROVEN MEDICAL VALUE

MIC\* results from a cultured isolate in as little as 5 to 8 hours<sup>13,16</sup>, allows clinicians to quickly optimise antimicrobial therapy and implement infection control policies<sup>10</sup>:

- Reduced length and cost of hospitalisation<sup>1,2,9,10</sup>
- Decrease antimicrobial usage and help implement institutional stewardship policies<sup>2,9,10</sup>
- Right drug at the right time

\*MIC - Minimum inhibitory concentrations

1. Ayats J., et. al. ASM 2007; Poster C-158. 2. Barenfanger J., et. al. J Clin Microbiol, 1999; 37(5): 1415. 3. Barry J., et. al. J of Antimicrob Chemother, 2003; 51: 1191. 4. Blondel-Hill E., et. al. ICAAC 2006; Poster D-691. 5. Bobenich A.M., et. al. J Clin Microbiol, 2014; 53(3): 816. 6. Bobenichik A.M., et. al. J Clin Microbiol, 2014; 52 (2): 392. 7. Doat V., et. al. ECCMID 2007; Poster P-1727. 8. Eigner U., et. al. J Clin Microbiol, 2005; 43(8): 3829. 9. Galar A., et. al. J Infect, 2012; 65(4): 302. 10. Galar A., et. al. Eur J Clin Microbiol Infect Dis, 2012; 31 (9): 2445. 11. Heller-Ono A. bioMerieux White Paper, 2008. 12. Hooper M., et. al. ECCMID 2013; Poster P-1536. 13. LaBombardi V.J. bioMerieux White Paper, 2011. 14. Larone D.H., et. al. ASM 2000; Poster C-279. 15. Livermore DM., et. al. J Antimicrob Chemother, 2002; 49 (2): 289. 16. Römmler W., et. al. ASM 2006; Poster C-123. 17. Sanders CC., et. al. J Clin Microbiol, 2001; 39 (7): 2379.

bioMérieux Customer:  
Patient Name: XYZ  
Location: ICU  
Lab ID: 60451-U

Organism Quantity:  
Selected Organism : Escherichia coli

Source: URINE

Comments:  
- Amoxicillin or Ampicillin should not be used for empirical treatment and for susceptible Gram Negative organisms in urine infection because it cause major urological damage and having high infection recurrence rate. Source: IDSA Guideline. Recommendation for Acute Cystitis A1 - Nitrofurantoin (100mg twice daily for 5 days) -Recommendation for Acute Cystitis A1 - Trimethoprim/Sulfamethoxazole (160/800mg) -IDS tablet twice daily for 3 days.

Printed Jun 30, 2017 17:00 IST  
Patient ID: BH030866  
Physician: DR.AAAA BBBB  
Isolate Number: 1  
Collected: Jun 29, 2017

Identification Information	Analysis Time:	5.00 hours	Status:	Final
Selected Organism	Bionumber:	Escherichia coli 0405610554524610		
ID Analysis Messages				

Susceptibility Information	Antimicrobial	Analysis Time:	7.50 hours	Antimicrobial	MIC	Status:	Interpretation
					<= 0.25	S	
+Amoxicillin				Meropenem	<= 2	S	
Ampicillin		<= 2		Amikacin	<= 2	S	
Amoxicillin/Clavulanic Acid		<= 2		Gentamicin	<= 1	S	
Piperacillin/Tazobactam		<= 4		+Tobramycin	>= 32	R	
Cefuroxime		4		Nalidixic Acid	>= 4	R	
Cefuroxime Axetil		4		Ciprofloxacin	>= 4	R	
+Ceftazidime		<= 1		Norfloxacin	<= 0.5	S	
Ceftazoxime		<= 8		Tigecycline	<= 0.5	S	
Cefoperazone/Subactam		<= 1		Nitrofurantoin	<= 0.5	S	
Cefepime		<= 0.5		Colistin	<= 20	S	
Ertapenem		<= 0.25		Trimethoprim/Sulfamethoxazole	<= 20	S	
Imipenem		<= 0.25					

+= Deduced drug\* = AES modified \*\*= User modified

AES Findings	Consistent
Confidence:	

**MIC guiding table for interpretation of VITEK result for Enterobacteriaceae\* in AST N280 panel**

Antibiotic susceptibility test results are based on the isolate's MIC (Minimum Inhibitory Concentration) for tested antibiotics. Isolate's MIC for antibiotic can fall under following categories: Susceptible (S), Intermediate (I) and Resistant (R)

VITEK MIC Detection Range in µg/mL for Antibiotics

Antibiotic	Detectable MIC Range lower than Sensitive MIC breakpoint		S	I	R	Detectable MIC Range higher than Resistant MIC breakpoint	
	≤2	4				≤8	16
Ampicillin	≤2	4	≤8	16	≥32	≥64	
Amoxicillin /Clavulanic Acid	≤2	4	≤8	16	≥32	≥64	
Piperacillin/Tazobactam	≤4	8	≤16	32-64	≥128	≥256	
Cefuroxime (Parenteral)	≤1	2	≤4	8-16	≥32	≥64	
Cefuroxime Axetil (Oral)	≤1	2	≤1	2	≥4	8	16
Ceftriaxone			≤8	16	≥32	≥64	
Cefoperazone/ Subbactam			≤1	2	≥2	4	≥8
Cefepime			≤0.5	1	≥4	8	≥16
Ertapenem	≤0.25	0.5	≤1	2	≥4	8	≥16
Imipenem	≤0.25	0.5	≤1	2	≥4	8	≥16
Meropenem	≤2	4	≤8	16	≥32	≥64	
Amikacin			≤1	2	≥4	8	≥16
Gentamicin	≤2	4	≤8	-	≥32	≥64	
Nalidixic Acid	≤0.25	0.5	≤1	2	≥4	8	≥16
Ciprofloxacin	≤0.5	1	≤2	4	≥128	≥256	≥512
Tigecycline			≤16	64	≥128	≥256	≥512
Nitrofurantoin	≤0.5	1	≤2	-	≥4	8	≥16
Colistin			≤20	40	≥80	160	≥320
Trimethoprim/Sulfamethoxazole					≥0.0625	0.125-0.5	≥1
Ciprofloxacin for salmonella spp.							

This MIC guiding table provides a scale to identify lower MIC by comparing antibiotic test result MIC with its respective Susceptible breakpoint.

For example: Use this MIC guiding table with VITEK Test report

MIC Guiding Table: VITEK MIC Detection Range in µg/mL for Antibiotics

Vitek Test Report

Antimicrobial	MIC	Interpretation	S	I	R
Amikacin	4	S			
Gentamicin	4	S			

Amikacin test result MIC = 4 with S= Susceptible interpretation.

Gentamicin test result MIC = 4 with S= Susceptible interpretation.

Amikacin test result MIC = 4 with S= Susceptible interpretation.

Gentamicin test result MIC = 4 with S= Susceptible interpretation.

Amikacin test result with MIC 4 is equal to the Susceptible breakpoint (S = ≤4).

Gentamicin test result with MIC 4 is equal to the Susceptible breakpoint (S = ≤4).

Detectable MIC range lower than Susceptible MIC threshold

MIC lower than Susceptible Breakpoint

Infects with an MIC at or below the susceptible breakpoint is inhibited by usually achievable concentration of antimicrobial agent when dosage recommended.

Susceptible MIC Breakpoint

Infects with an MIC within the intermediate range that approach usually achievable tissue and tissue levels and for which response rates may be lower than normal.

Intermediate MIC Breakpoint

Infects with an MIC within the intermediate range that approach usually achievable tissue and tissue levels and for which response rates may be lower than normal.

Resistant MIC Breakpoint

Infects with an MIC at or above the resistant breakpoint. Inhibition is achieved by the usually achievable concentration of the agent with higher dosages schedules and/or different dosing intervals.

Resistant

Usually efficacy of the agent is lost if the isolate has not been inhibited shown in the treatment studies.

Note: ① MIC-breakpoints are based on VITEK® Knowledge which is based on CLSI breakpoints and VITEK MIC detection range is based on cut-off ranges mentioned.

② This document is for guiding purpose only and is not replace clinical assessment & judgment. For further assistance and further evaluation, kindly consult microbiologist or consult with clinical team.

# With its intuitive customisable reporting and seamless lab connectivity, VITEK® 2 easily adapts to your specific needs.

## RESULTS AT A GLANCE

- Immediate automatic validation and transfer of high confidence results to the LIS (auto-posting) with the ADVANCED EXPERT SYSTEM software for faster targeted therapy
- Easy-to-use and familiar Windows® layout
- Quick access to ID and AST results using the navigation tree and filters
- Rapid result searches by patient, bench, date tested, organism, technician, accession number, etc.

## CUSTOMISED REPORTING

According to your requirements using BIOART (Advanced Reporting Tool)

- Create rules based on intuitive ifthen logic
- Eliminates manual report modification
- Automatically adds customised comments and alerts when reporting critical results
- Helps implement your institutions reporting and infection control policies

## QUALITY CONTROL MODULE

- Manages and reports quality control results

# Tailor VITEK® 2 to your needs

## CONNECTIVITY

### Link to other computers and software

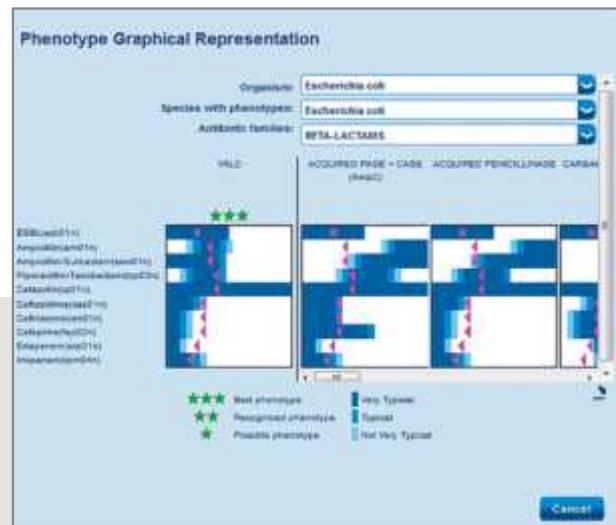
- Connect easily to your Laboratory Information System (LIS) with BCI Link (Bi-directional Computer Interface)
- VILINK® software allows remote support and troubleshooting through a secure connection and enables automatic software, firmware and security updates.

## MANAGE DATA AND SAMPLE WORKFLOW

### MYLA®\* software simplifies lab operations

- Provides real-time instrument and sample information at your fingertips
- Offers an actionable picture of your workflow through intuitive dashboards
- Results accessible from any device, any location
- Real-time cumulative statistical functions (e.g. antibiograms)
- Enables remote access by multiple users and real-time connectivity to an existing LIS

\* Optional software package



# VITEK® 2

is designed to make your ID/AST workflow as **rapid** and **reliable** as possible, while still providing maximum **flexibility** and full **traceability**. Lab personnel can focus on using their expertise where its most needed.

Choose Isolate



Prepare organism suspension and ensure correct McFarland Standard with DENSICHEK® PLUS



Scan card and Isolate barcodes to establish traceability



VITEK® 2 COMPACT: Use ID suspension to make AST suspension

## SAVE TIME AND STREAMLINE YOUR WORKFLOW

VITEK® 2 has the shortest hands-on-time in the industry<sup>1,4,8,11,12,16</sup>

- Ergonomic automation enhances workflow<sup>11</sup>
- Minimal sample preparation with up to 50% fewer steps<sup>11,14,16</sup>
- Significantly less waste than other systems; up to 64% cost savings for contaminated waste disposal<sup>7,12,14</sup>

## FLEXIBILITY

Simultaneous access from multiple workbenches

- The barcoding system saves time and improves traceability by linking patient isolates and test cards at the bench.
- VITEK® 2 improves lab workflow by allowing patient demographics to be linked to tests at multiple benches simultaneously.
- Simultaneous multi-user access to VITEK® 2 systems lets microbiologists finalise results from individual workstations.

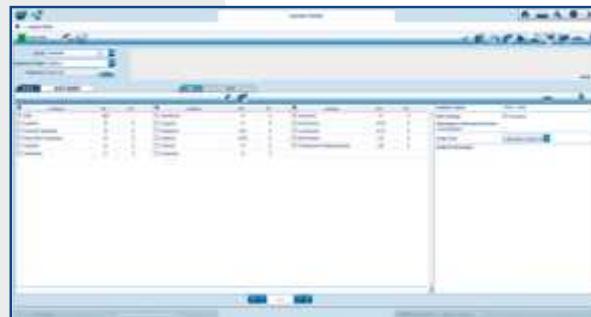
# Focus on what matters

VITEK® 2/XL: Load cards on instrument for fully automated processing



VITEK® 2

Results in as little as 5 to 8 hours



VITEK® 2 COMPACT: Cards inoculated inside instrument and manually transferred from filling door to loading door for processing



## RELIABLE, SAFE, RAPID

VITEK® 2 COMPACT

VITEK® 2 ID/AST cards are innovative

- Proven accuracy, with faster results, contributing to improved patient outcomes<sup>1-8, 10, 12</sup>
- Minimises human error that is an inevitable part of manually reading and reviewing results<sup>3, 17</sup>
- Closed system: no aerosols, splattering or spills
- Full traceability with pre-applied barcodes
- Lightweight: reduced waste and biohazard disposal costs while minimising storage space
- EUCAST® and CLSI\* compliant AST formulations available producing MICs based on reference CLSI and ISO MIC methods

\* CLSI - Clinical & Laboratory Standards Institute  
European Committee on Antimicrobial Susceptibility Testing

# Rapid, Flexible, Efficient

Each self-contained, disposable test card provides rapid and accurate species-level identification or susceptibility results with accurate MICs\* based on reference CLSI\*\*, ISO MIC methods, EUCAST\*\*\* and US FDA\*\*\*\*, or CLSI breakpoint interpretations.



## Innovative and flexible design:

- Each card contains microwells with ID biochemicals or AST antimicrobials
- Ready and simple to use
- Pre-applied barcodes for maximum traceability
- EUCAST and CLSI compliant AST formulations available

## Up to 50% fewer preparation steps than other systems.

- Inoculation with a simple, standardised suspension of organism in saline
- No reagent addition

## Unique, safe, closed consumable:

- Optimal for user safety
- No aerosols, splattering, or spills
- Small, lightweight cards save on contaminated disposal costs and storage space

## BROAD AND EXPANDING ID/AST TEST MENU

### IDENTIFICATION CARD TYPES:

- GN (Gram negative bacilli)  
156 organisms
- GP (Gram positive cocci & bacilli)  
120 organisms
- ANC (anaerobes & Corynebacteria)  
89 organisms
- NH (Neisseria & Haemophilus)  
26 organisms
- YST (Yeast)  
50 organisms

### ANTIBIOTIC SUSCEPTIBILITY CARD TYPES\*

- Gram negative Bacilli  
76 antimicrobials and ESBL<sup>†</sup> test
- Staphylococci &/or Enterococci  
55 antimicrobials, 4 high level aminoglycoside screens and ICR<sup>††</sup> test
- Streptococci  
14 antimicrobials and ICR test and gentamicin synergy
- Streptococcus pneumoniae  
23 antimicrobials
- YST (Yeast)  
6 antimicrobials

\*Availability pending registrations as required by local regulatory authority

\* Minimum Inhibitory Concentration

\*\* Clinical & Laboratory Standards Institute

\*\*\* European Committee on Antimicrobial Susceptibility Testing

\*\*\*\*Food and Drug Administration

† Extended-spectrum-beta-lactamase

†† Inducible clindamycin resistance

**GRAM NEGATIVE  
IDENTIFICATION**  
**VITEK® 2 GN CARD**  
**REF. 21341**

**ENTEROBACTERIACEAE**

- *Budvicia aquatica*
- *Buttiauxella agrestis*
- *Cedcea daviseae*
- *Cedcea lapagei*
- *Citrobacter amalonaticus*
- *Citrobacter braakii*
- *Citrobacter farmeri*
- *Citrobacter freundii*
- *Citrobacter koseri*
- *Citrobacter sedlakii*
- *Citrobacter youngae*
- *Cronobacter sakazakii group<sup>(1)</sup>*
- *Edwardsiella hoshiniae*
- *Edwardsiella tarda*
- *Enterobacter aerogenes*
- *Enterobacter amnigenus 1*
- *Enterobacter amnigenus 2*
- *Enterobacter asburiae*
- *Enterobacter cancerogenus*
- *Enterobacter cloacae complex<sup>(1)</sup>*
- *Enterobacter gergoviae*
- *Escherichia coli*
- *Escherichia coli O157*
- *Escherichia fergusonii*
- *Escherichia hermannii*
- *Escherichia vulneris*
- *Ewingella americana*
- *Hafnia alvei*
- *Hafnia paralvei*
- *Klebsiella oxytoca*
- *Klebsiella pneumoniae ssp ozaenae*
- *Klebsiella pneumoniae ssp pneumoniae*
- *Klebsiella pneumoniae ssp rhinoscleromatis*
- *Kluyvera ascorbata*
- *Kluyvera cryocrescens*
- *Kluyvera intermedia*
- *Ledicia adecarboxylata*
- *Moellerella wisconsensis*
- *Morganella morganii ssp. morganii*
- *Morganella morganii ssp. sibonii*
- *Pantoea agglomerans*
- *Pantoea spp.*
- *Plesiomonas shigelloides*
- *Proteus hauseri*
- *Proteus mirabilis*
- *Proteus penneri*
- *Proteus vulgaris*
- *Providencia alcalifaciens*
- *Providencia rettgeri*
- *Providencia rustigianii*
- *Providencia stuartii*
- *Rahnella aquatilis*
- *Raoultella ornithinolytica*
- *Raoultella planticola*
- *Roseomonas gilardii*

- *Salmonella enterica ssp arizona*
- *Salmonella enterica ssp diarizonae*
- *Salmonella group<sup>(2)</sup>*
- *Salmonella ser. Gallinarum*
- *Salmonella ser. paratyphi A*
- *Salmonella ser. typhi*
- *Serratia ficaria*
- *Serratia fonticola*
- *Serratia liquefaciens group<sup>(3)</sup>*
- *Serratia marcescens*
- *Serratia odorifera*
- *Serratia plymuthica*
- *Serratia rubidaea*
- *Shigella group<sup>(4)</sup>*
- *Shigella sonnei*
- *Tatumella ptyseos*
- *Yersinia aldovae*
- *Yersinia enterocolitica/frederiksenvi*
- *Yersinia intermedia*
- *Yersinia kristensenii*
- *Yersinia pestis*
- *Yersinia pseudotuberculosis*
- *Yersinia ruckeri*
- *Yokenella regensburgei*
- NON-ENTEROBACTERIACEAE**
- *Achromobacter denitrificans*
- *Achromobacter xylosoxidans*
- *Acinetobacter baumannii complex*
- *Acinetobacter haemolyticus*
- *Acinetobacter junii*
- *Acinetobacter lwoffii*
- *Actinobacillus radioresistens*
- *Actinobacillus ursingii*
- *Actinobacillus ureae*
- *Aeromonas hydrophila/ Aeromonas caviae*
- *Aeromonas salmonicida*
- *Aeromonas sobria*
- *Aeromonas veronii*
- *Alcaligenes faecalis ssp. faecalis*
- *Bordetella bronchiseptica*
- *Bordetella hinzii*
- *Bordetella trematum*
- *Brevundimonas diminuta/vesicularis*
- *Brucella melitensis*
- *Burkholderia cepacia group<sup>(5)</sup>*
- *Burkholderia gladioli*
- *Burkholderia mallei*
- *Burkholderia pseudomallei*
- *Chromobacterium violaceum*
- *Chryseobacterium gleum*
- *Chryseobacterium indologenes*
- *Comamonas testosteroni*
- *Cupriavidus pauculus*
- *Delftia acidovorans*
- *Elizabethkingia meningoseptica*
- *Francisella tularensis*
- *Yersinia pestis*
- *Pasteurella multocida*
- *Pasteurella pneumotropica*
- *Pasteurella testudinis*
- *Photobacterium damsela*
- *Pseudomonas aeruginosa*
- *Pseudomonas alcaligenes*
- *Pseudomonas fluorescens*
- *Pseudomonas luteola*
- *Pseudomonas mendocina*
- *Pseudomonas oleovorans*
- *Pseudomonas oryzihabitans*
- *Pseudomonas putida*
- *Pseudomonas stutzeri*
- *Ralstonia insidiosa*
- *Ralstonia mannitolilytica*
- *Ralstonia pickettii*
- *Rhizobium radiobacter*
- *Roseomonas gilardii*
- *Shewanella algae*
- *Shewanella putrefaciens*
- *Sphingobacterium multivorum*
- *Sphingobacterium spiritivorum*
- *Sphingobacterium thalpophilum*
- *Sphingomonas paucimobilis*
- *Stenotrophomonas maltophilia*
- *Vibrio alginolyticus*
- *Vibrio cholerae*
- *Vibrio fluvialis*
- *Vibrio metschnikovii*
- *Vibrio mimicus*
- *Vibrio parahaemolyticus*
- *Vibrio vulnificus*
- HIGHLY PATHOGENIC ORGANISMS**
- *Brucella melitensis*
- *Burkholderia mallei*
- *Burkholderia pseudomallei*
- *Escherichia coli O157*
- *Francisella tularensis*
- *Yersinia pestis*

**GRAM POSITIVE IDENTIFICATION**

**VITEK® 2 GP CARD**  
**REF. 21342**

- *Abiotrophia defectiva*
- *Aerococcus urinae*
- *Aerococcus viridans*
- *Allaococcus otitis*
- *Dermacoccus nishinomiyaensis / Kytococcus sedentarius*
- *Enterococcus avium*
- *Enterococcus casseliflavus*
- *Enterococcus cecorum*
- *Enterococcus columbae*
- *Enterococcus durans*
- *Enterococcus faecalis*
- *Enterococcus faecium*
- *Enterococcus gallinarum*
- *Enterococcus hirae*
- *Enterococcus raffinosus*
- *Enterococcus saccharolyticus*
- *Erysipelothrix rhusiopathiae*
- *Facklamia hominis*
- *Gardnerella vaginalis*
- *Gemella bergeri*
- *Gemella haemolysans*
- *Gemella morbillorum*
- *Gemella sanguinis*
- *Globicatella sanguinis*
- *Globicatella sulfidificans*
- *Granulicatella adiacens*
- *Granulicatella elegans*
- *Helcococcus kunzii*
- *Kocuria kristinae*
- *Kocuria rhizophila*
- *Kocuria rosea*
- *Kocuria varians*
- *Lactococcus garvieae*
- *Lactococcus lactis ssp cremoris*
- *Lactococcus lactis ssp lactis*
- *Lactococcus raffinolactis*
- *Leuconostoc citreum*
- *Leuconostoc lactis*
- *Leuconostoc mesenteroides ssp. cremoris*
- *Leuconostoc mesenteroides ssp. dextranicum*
- *Leuconostoc mesenteroides ssp. mesenteroides*
- *Leuconostoc pseudomesenteroides*
- *Listeria fleischmannii*
- *Listeria grayi*
- *Listeria innocua*
- *Listeria ivanovii*
- *Listeria monocytogenes*
- *Listeria rocourtiae*
- *Listeria seeligeri*
- *Listeria welshimeri*
- *Micrococcus luteus/lyiae*
- *Pediococcus acidilactici*
- *Pediococcus pentosaceus*
- *Rothia mucilaginosa*
- *Staphylococcus arlettae*
- *Staphylococcus aureus*
- *Staphylococcus auricularis*
- *Staphylococcus capitis*
- *Staphylococcus caprae*
- *Staphylococcus carnosus ssp. carnosus*
- *Staphylococcus chromogenes*
- *Staphylococcus cohnii ssp. cohnii*
- *Staphylococcus cohnii ssp. urealyticus*
- *Staphylococcus epidermidis*
- *Staphylococcus equorum*
- *Staphylococcus gallinarum*
- *Staphylococcus haemolyticus*
- *Staphylococcus hominis ssp. hominis*
- *Staphylococcus hominis ssp. novobiosepticus*
- *Staphylococcus hyicus*
- *Staphylococcus intermedius*
- *Staphylococcus kloosii*
- *Staphylococcus lentus*
- *Staphylococcus lugdunensis*
- *Staphylococcus pseudintermedius*
- *Staphylococcus saprophyticus*
- *Staphylococcus schleiferi*
- *Staphylococcus sciuri*
- *Staphylococcus simulans*
- *Staphylococcus vitulinus*
- *Staphylococcus warneri*
- *Staphylococcus xylosus*

- *Streptococcus agalactiae*
- *Streptococcus alactolyticus*
- *Streptococcus anginosus*
- *Streptococcus canis*
- *Streptococcus constellatus* ssp. *constellatus*
- *Streptococcus constellatus* ssp. *pharyngis*
- *Streptococcus cristatus*
- *Streptococcus downei*
- *Streptococcus dysgalactiae* ssp. *dysgalactiae*
- *Streptococcus dysgalactiae* ssp. *equisimilis*
- *Streptococcus equi* ssp. *equi*
- *Streptococcus equi* ssp. *zooepidemicus*
- *Streptococcus equinus*
- *Streptococcus gallolyticus* ssp. *gallolyticus*
- *Streptococcus gallolyticus* ssp. *pasteurianus*
- *Streptococcus gordonii*
- *Streptococcus hyointestinalis*
- *Streptococcus infantarius* ssp. *coli* (*Str. lutetiensis*)
- *Streptococcus infantarius* ssp. *infantarius*
- *Streptococcus iniae*
- *Streptococcus intermedius*
- *Streptococcus mitis* / *Streptococcus oralis*
- *Streptococcus mutans*
- *Streptococcus ovis*
- *Streptococcus parasanguinis*
- *Streptococcus pluranimalium*
- *Streptococcus pneumoniae*
- *Streptococcus porcinus*
- *Streptococcus pseudoporcinus*
- *Streptococcus pyogenes*
- *Streptococcus salivarius* spp. *salivarius*
- *Streptococcus salivarius* spp. *thermophilus*
- *Streptococcus sanguinis*
- *Streptococcus sobrinus*
- *Streptococcus suis* I
- *Streptococcus suis* II
- *Streptococcus thoraltensis*
- *Streptococcus uberis*
- *Streptococcus vestibularis*
- *Vagococcus fluvialis*

## ANAEROBE CORYNEBACTERIA IDENTIFICATION

### VITEK 2 ANC CARD REF. 21347

- *Actinobaculum schaalii*
- *Actinomyces bovis*
- *Actinomyces israelii*
- *Actinomyces meyeri*
- *Actinomyces naeslundii*
- *Actinomyces neuii*
- *Actinomyces odontolyticus*
- *Actinomyces turicensis*
- *Anaerococcus prevotii*
- *Arcanobacterium haemolyticum*

- *Atopobium vaginae*
- *Bacteroides caccae*
- *Bacteroides eggertii*
- *Bacteroides fragilis*
- *Bacteroides ovatus*
- *Bacteroides stercoris*
- *Bacteroides thetaiotaomicron*
- *Bacteroides uniformis*
- *Bacteroides vulgatus*
- *Bifidobacterium* spp.
- *Campylobacter* (*Bacteroides*) *ureolyticus*
- *Clostridium barati*
- *Clostridium bifermentans*
- *Clostridium butyricum*
- *Clostridium cadaveris*
- *Clostridium chauvoei*
- *Clostridium clostridiiforme*
- *Clostridium difficile*
- *Clostridium glycolicum*
- *Clostridium group*
- *Clostridium histolyticum*
- *Clostridium paraputrificum*
- *Clostridium perfringens*
- *Clostridium ramosum*
- *Clostridium septicum*
- *Clostridium sordellii*
- *Clostridium sporogenes*
- *Clostridium subterminale*
- *Clostridium tertium*
- *Collinsella aerofaciens*
- *Corynebacterium amycolatum*
- *Corynebacterium diphtheriae*
- *Corynebacterium jeikeium*
- *Corynebacterium minutissimum*
- *Corynebacterium pseudodiphtheriticum*
- *Corynebacterium striatum*
- *Corynebacterium ulcerans*
- *Corynebacterium urealyticum*
- *Eggerthella lenta*
- *Eggerthella catenaformis* (*Lactobacillus catenaformis*)
- *Eubacterium limosum*
- *Finegoldia magna*
- *Fusobacterium mortiferum*
- *Fusobacterium necrophorum*
- *Fusobacterium nucleatum*
- *Fusobacterium varium*
- *Lactobacillus acidophilus*
- *Lactobacillus buchneri*
- *Lactobacillus casei*
- *Lactobacillus fermentum*
- *Lactobacillus gasseri*
- *Lactobacillus hilgardi*
- *Lactobacillus parabuchneri*
- *Lactobacillus paracasei*
- *Lactobacillus plantarum*
- *Microbacterium flavescent*
- *Micobacterium* spp
- *Parabacteroides distasonis*
- *Parabacteroides merdae*
- *Parvimonas micra*
- *Peptoniphilus asaccharolyticus*
- *Peptoniphilus indolicus*
- *Peptostreptococcus anaerobius*
- *Porphyromonas gingivalis*
- *Prevotella bivia*
- *Prevotella buccae*
- *Prevotella disiens*

- *Prevotella denticola*
- *Prevotella intermedia*
- *Prevotella melaninogenica*
- *Prevotella oralis*
- *Prevotella oris*
- *Propionibacterium acnes*
- *Propionibacterium granulosum*
- *Propionibacterium propionicum* (*Propionibacterium propionicus*)
- *Staphylococcus saccharolyticus*
- *Trueperella pyogenes* (*Arcanobacterium pyogenes*)
- *Turicella otitidis*
- *Veillonella* spp.

## NEISSERIA HAEMOPHILUS IDENTIFICATION

### VITEK 2 NH CARD REF. 21346

- *Actinobacillus pleuropneumoniae*
- *Actinobacillus suis*
- *Actinobacillus ureae*
- *Aggregatibacter actinomycetemcomitans*
- *Aggregatibacter aphrophilus*
- *Aggregatibacter segnis*
- *Campylobacter coli*
- *Campylobacter fetus* ssp. *fetus*
- *Campylobacter jejuni* ssp. *jejuni*
- *Capnocytophaga* spp.
- *Cardiobacterium hominis*
- *Eikenella corrodens*
- *Gardnerella vaginalis*
- *Haemophilus haemolyticus*
- *Haemophilus influenzae*
- *Haemophilus parahaemolyticus*
- *Haemophilus parainfluenzae*
- *Histophilus somni*
- *Kingella denitrificans*
- *Kingella kingae*
- *Moraxella* (*Branhamella*) *catarrhalis*
- *Moraxella* (*Neisseria*) *ovis*
- *Neisseria cinerea*
- *Neisseria elongata*
- *Neisseria gonorrhoeae*
- *Neisseria lactamica*
- *Neisseria meningitidis*
- *Neisseria sicca*
- *Neisseria weaveri*
- *Oligella urethralis*
- *Riemerella anatipestifer*
- *Suttonella indologenes*

- 1) *Burkholderia cepacia*, *Cronobacter sakazakii*, *Enterobacter cloacae*  
 2) *Salmonella enterica* ssp. *enterica*, *S.typhimurium*, *S.enteritidis*, *S.spp*, *S.ser.Paratyphi B*, *S.ser.Paratyphi C*  
 3) *Serratia grimesii*, *Ser.liquefaciens*, *Ser.proteamaculans* ssp. *proteamaculans*  
 4) *Shigella flexneri*, *Shi.boydii*, *Shi.dysenteriae*  
 5) *Burkholderia cepacia*, *B.multivorans*, *B.stabilis*, *B.vietnamensis*  
 6) *Moraxella lacunata*, *M.nonliquefaciens*, *M.osloensis*

## YEAST IDENTIFICATION

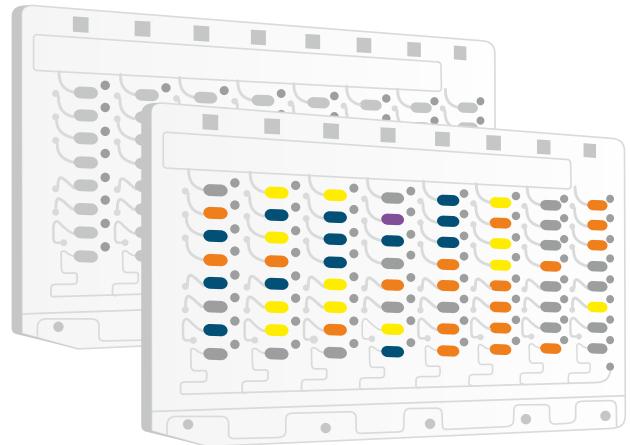
### VITEK 2 YST CARD REF. 21343

- *Candida albicans*
- *Candida auris*
- *Candida boidinii*

# India specific card

## Customization of Antibiotic panels to meet your needs

- Designed to detect prevailing/emerging antibiotic resistance
- Customised as per prescribing habits of clinicians
- MIC breakpoint are based on latest CLSI guidelines
- Availability of antibiotics at pharmacy



PANEL FOR GNB	REF-414532
Product Description: AST N281	
Amikacin	
Aztreonam	
Cefepime	
Cefoperazone/Sulbactam	
Ceftazidime	
Ciprofloxacin	
Colistin	
Doripenem	
Gentamicin	
Imipenem	
Levofloxacin	
Meropenem	
Minocycline	
Piperacillin/Tazobactam	
Ticarcillin/Clav. Acid	
Tigecycline	
Trimethoprim/Sulfa	

PANEL FOR GNB	REF-413170
Product Description: AST N235	
Amikacin	
Amoxicillin/Clav.acid (CLSI)	
Ampicillin	
Cefalotin	
Cefixime	
Cefoxitin	
Ceftazidime	
Ceftriaxone	
Ciprofloxacin	
Ertapenem	
Fosfomycin	
Gentamicin	
Nalidixic Acid	
Nitrofurantoin	
Norfloxacin	
Ofloxacin	
Piperacillin/Tazobactam	
Ticarcillin	
Trimethoprim/Sulfa	

PANEL FOR GPC	REF-414534
Product Description: AST P628	
Benzylpenicillin	
Cefoxitin Screen	
Ciprofloxacin	
Clindamycin	
Daptomycin	
Erythromycin (for CLSI only)	
Gentamicin	
Gentamicin HL (CLSI)	
Inducible Clindamycin Resistance	
Levofloxacin	
Linezolid	
Nitrofurantoin	
Oxacillin	
Rifampicin	
Teicoplanin	
Tetracycline	
Tigecycline	
Trimethoprim/Sulfa	
Vancomycin	

PANEL FOR STREP	REF-421040
Product Description: AST ST03	
Ampicillin	
Benzylpenicillin	
Cefotaxime	
Ceftriaxone	
Chloramphenicol	
Clindamycin	
Erythromycin	
Gentamicin	
Inducible Clindamycin Resistance	
Levofloxacin	
Moxifloxacin	
Linezolid	
Tetracycline	
Tigecycline	
Trimethoprim/Sulfa	
Rifampicin	
Vancomycin	
Teicoplanin	

PANEL FOR GNB	REF-414531
Product Description: AST N280	
Amikacin	
Amoxicillin/Clav.acid (CLSI)	
Ampicillin	
Cefepime	
Cefoperazone/Sulbactam	
Ceftriaxone	
Cefuroxime	
Ciprofloxacin	
Colistin	
Ertapenem	
Gentamicin	
Imipenem	
Meropenem	
Nalidixic Acid	
Nitrofurantoin	
Piperacillin/Tazobactam	
Tigecycline	
Trimethoprim/Sulfa	

PANEL FOR YEAST	REF-420729
Product Description: AST YS08	
Amphotericin B	
Caspofungin	
Fluconazole	
Flucytosine	
Micafungin	
Voriconazole	



# Flexibility to meet your workflow needs

## VITEK® 2 COMPACT



<b>CAPACITY OPTIONS</b> 30, or 60 cards per instrument	<b>DIMENSIONS</b> 72 x 68 x 60 cm	<b>ELECTRICAL REQUIREMENTS</b> 100/120 VAC (50-60 Hz) or 220/240 VAC (50-60 Hz)	<b>ENVIRONMENTAL REQUIREMENTS</b> Operating ambient temperature range of 15 °C to 30 °C Operating humidity range: 20% to 80% relative humidity, non-condensing
<b>CONNECTIONS</b> 4 instruments can be connected to the same PC	<b>WEIGHT</b> 75 kg	<b>HEAT DISSIPATED</b> 1025 BTU/Hr. (nominal)	<b>ALTITUDE</b> up to 2,000 m

## VITEK® 2



<b>CAPACITY</b> 60 cards per instrument	<b>DIMENSIONS</b> 100 x 71 x 67 cm	<b>ELECTRICAL REQUIREMENTS</b> 100/120 VAC (50-60 Hz) or 220/240 VAC (50-60 Hz)	<b>ENVIRONMENTAL REQUIREMENTS</b> Operating ambient temperature range of 20 °C to 30 °C Operating humidity range: 20% to 80% relative humidity, non-condensing
<b>CONNECTIONS</b> 4 instruments can be connected to the same PC	<b>WEIGHT</b> 110 kg	<b>HEAT DISSIPATED</b> 512 BTU/Hr. (nominal)	<b>ALTITUDE</b> up to 2,000 m

## VITEK® 2 XL



<b>CAPACITY</b> 120 cards per instrument	<b>DIMENSIONS</b> 140 x 71 x 67 cm	<b>ELECTRICAL REQUIREMENTS</b> 100/120 VAC (50-60 Hz) or 220/240 VAC (50-60 Hz)	<b>ENVIRONMENTAL REQUIREMENTS</b> Operating ambient temperature range of 20 °C to 30 °C Operating humidity range: 20% to 80% relative humidity, non-condensing
<b>CONNECTIONS</b> 4 instruments can be connected to the same PC	<b>WEIGHT</b> 145 kg	<b>HEAT DISSIPATED</b> 682 BTU/Hr. (nominal)	<b>ALTITUDE</b> up to 2,000 m