

# MICROSCAN GRAM-NEGATIVE COMBO PANELS

OPTIONS FOR ROUTINE AND CRITICAL ISOLATE TESTING

As the prevalence of antimicrobial resistance continues to increase, the value of accurate MIC testing and ultimately, the best patient outcome has become more critical than ever.

For over 40 years, the MicroScan AST system has been providing accurate and trusted bacterial identification and susceptibility results utilizing its broth microdilution technology. MicroScan's technology has been a key factor in detecting and fighting against antibiotic resistance.

MicroScan's latest software update and new Select Series Gram-negative panels:

## SIMPLIFY WORKFLOW WITH COMBO PANELS & NEW SOFTWARE



- › Integrate bacterial identification with AST in a single panel for routine or high-volume isolates
- › Provide Bruker MALDI Biotyper® CA Claim 6 database expansion of 364 new reference patterns & 59 new species/groups<sup>1</sup> with implementation of the latest LabPro software

## HELPS SUPPORT THE LATEST CAP CHECKLIST REQUIREMENTS



- › Include updated Enterobacterales breakpoints for fluoroquinolones and meropenem
- › Deliver updated ceftazidime breakpoints for Enterobacterales, *P. aeruginosa* and *Acinetobacter* spp.
- › Prepare for anticipated aminoglycoside and piperacillin-tazobactam breakpoint changes with expanded dilutions

**WITH INCREASING FREQUENCY, UTIs CAUSED BY ESβL-PRODUCING ENTEROBACTEREALES ARE SEEN IN OUTPATIENTS WITH NO PREVIOUS HEALTHCARE EXPOSURES<sup>2</sup>**

**PROVIDE CRITICAL DATA ON KEY AGENTS FOR CLINICAL MANAGEMENT WITH ANTIMICROBIAL-RESISTANT (AR) AND WORKHORSE DRUG TESTING**

- › Panel options with ceftazidime-avibactam and meropenem-vaborbactam, important options for treating CRE with class A carbapenemases like KPC<sup>3</sup>
- › Support timely infection control management and stewardship initiatives with ESβL confirmation and a balanced mix of antimicrobial classes and agents



# MICROSCAN GRAM-NEGATIVE COMBO PANELS

PANEL NAME			Neg Urine Combo 101	Neg Urine Combo 102	Neg Urine Combo 103
MICROSCAN CATALOG NUMBER			C89643	C89644	C89645
LANGUAGES			EN, ES, FR, CN	EN, ES, FR, CN	EN, ES, FR, CN
AGENT CLASS	Abbr.	Antimicrobial Agent	µg/mL	µg/mL	µg/mL
<b>Aminoglycosides</b>	Gm	Gentamicin	2-8	2-8	2-8
	To	Tobramycin	2-8	2-8	2-8
<b>Cephems</b>	(1st gen)	Cfz	Cefazolin	2-16	2-16
	(2nd gen)	Crm	Cefuroxime	—	—
	(3rd gen)	Caz	Ceftazidime	1, 4-16	1, 4-16
	(3rd gen)	Cax	Ceftriaxone	1-2	1-2
	(4th gen)	Cpe	Cefepime	2-16	2-16
<b>Cephems (cephamycin)</b>	Cfx	Cefoxitin	—	8-16	—
<b>ESβL</b>	Cft	ESβL Confirmation test*	Yes	Yes	Yes
<b>Fluoroquinolones</b>	Cp	Ciprofloxacin	0.25-2	0.25-2	0.25-2
	Lvx	Levofloxacin	0.5-4	—	0.5-4
<b>Folate pathway antagonist</b>	T/S	Trimethoprim-sulfamethoxazole	2/38	2/38	2/38
<b>Monobactam</b>	Azt	Aztreonam	4-16	4-16	4-16
<b>Nitrofurantoin</b>	Fd	Nitrofurantoin	32-64	32-64	32-64
<b>Penems</b>	Etp	Ertapenem	0.5-1	0.5-1	0.5-1
	Imp	Imipenem	—	1-8	—
	Mer	Meropenem	1-8	1-8	1-8
<b>Penicillin</b>	Am	Ampicillin	8-16	8-16	8-16
<b>Tetracyclines</b>	Min	Minocycline	4-8	—	—
	Te	Tetracycline	—	4-8	4-8
<b>β-lactam combinations</b>	Aug	Amoxicillin-K clavulanate	—	8/4-16/8	—
	A/S	Ampicillin-sulbactam	8/4-16/8	4/2-16/8	8/4-16/8
	CZA	Ceftazidime-avibactam	8/4-16/4	—	8/4-16/4
	MEV	Meropenem-vaborbactam	2/8-8/8	—	—
	P/T	Piperacillin-tazobactam	8/4- 64/4	8/4-64/4	8/4-64/4

\*ESβL confirmation test includes the following agents & dilution's: Cefotaxime 2, 16; Ceftazidime 1, 8; Cefotaxime/K Clavulanate 0.5/4, 4/4; Ceftazidime/K Clavulanate 0.25/4, 2/4

## Advantage MicroScan:

- › Manual read-capable panels enable visual confirmation of unusual results MIC results do not require identification to complete
- › Direct MIC method is able to detect emerging antibiotic resistance providing confidence in patient results, a strong foundation for antibiotic stewardship and reducing delays and costs associated with repeat and backup testing

### References

1. MALDI Biotyper CA v3.2 Release Notes; Doc. No. 5023974 Revision G (January 2021)
2. CDC. 2019. Antibiotic Resistance Threats in the United States; <https://www.cdc.gov/drugresistance/biggest-threats.html#extend>
3. Tamma et al. 2022. IDSA Guidance on Treatment of ESβL-producing Enterobacterales, Carbapenem-resistant Enterobacterales and *P. aeruginosa* with Difficult-to-Treat Resistance; <https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciac268/6570801>

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