

thermo scientific

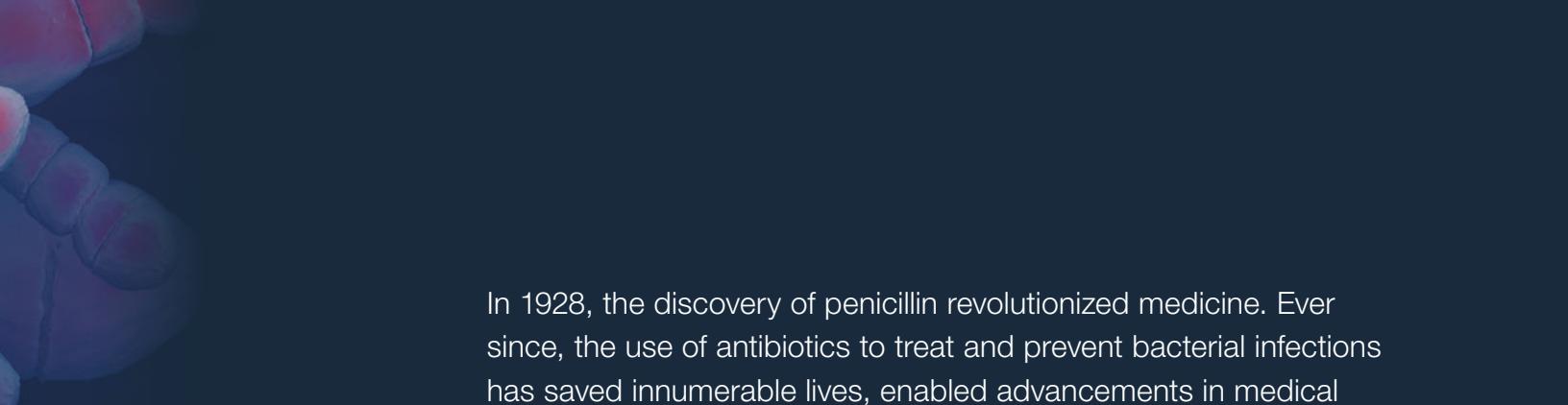


# Thermo Scientific Sensititre System

for antimicrobial susceptibility testing

**ThermoFisher**  
SCIENTIFIC





In 1928, the discovery of penicillin revolutionized medicine. Ever since, the use of antibiotics to treat and prevent bacterial infections has saved innumerable lives, enabled advancements in medical procedures like surgery and chemotherapy, and helped slow the spread of deadly infections.

However, after nearly 100 years of widespread antibiotic use, the threat posed by evolving bacteria possessing resistance to common antibiotics has emerged as one of the most significant global health issues of the 21st century. Antimicrobial resistance is present in every country, increases healthcare costs, and is accelerating due to the misuse and overuse of antibiotics in both people and animals.

The ability to treat infections quickly and accurately with the information obtained from antimicrobial susceptibility testing (AST) is of the utmost importance for combating resistance. Access to an AST device with the most up-to-date antimicrobials is vital to expanding patient treatment options and improving patient outcomes.

**“Antimicrobial resistance is a global health emergency that will seriously jeopardize progress in modern medicine.”<sup>1</sup>**

Dr. Tedros Adhanom Ghebreyesus  
Director-General, WHO

<sup>1</sup>World Health Organization. (2017, September 20). The world is running out of antibiotics, WHO report confirms [Press Release]. Retrieved from: <http://www.who.int/mediacentre/news/releases/2017/running-out-antibiotics/en/>



# Contents

Thermo Scientific™ Sensititre™ System	4
Thermo Scientific™ Sensititre™ ARIS HiQ™ System	6
View, deliver, read	8
The value of a true MIC for AST	10
Custom capabilities	12
New MDRO formats	14
Sensititre MIC plates	
Human	16
Gram negative	18
Gram positive	30
Yeast	38
Veterinary	48
Surveillance	60
Customer service and installation	71
Quality control	74
More antimicrobials, more testing options	76

# Thermo Scientific Sensititre System

Confidently identify bacterial pathogens and detect emerging antibiotic resistance with the gold standard equivalent<sup>1</sup> accuracy of broth microdilution combined with the time-saving benefits of automation to optimize patient care, support antimicrobial stewardship, and improve lab efficiency.

With a proven history of AST accuracy, the Sensititre System delivers accurate antimicrobial susceptibility testing (AST) for the most commonly prescribed antibiotics as well as novel, last-resort therapies.

## Select Plate



**Sensititre Standard AST Plates**—choose from our wide selection of standard plates to suit your application, including Gram positive, Gram negative, fastidious, mycobacteria and yeast formats.



**Sensititre Custom AST Plates**—design your own plate from our selection of over 300 antimicrobials. We offer one of the widest, most up-to-date selections of antimicrobials, available in wide dilution ranges.

## Inoculum



**Thermo Scientific™ Sensititre™ Nephelometer**—a simple solution for inoculum density measurements and standardize inoculation preparation.

► See page 9



**Thermo Scientific™ Sensititre™ 8-Channel Programmable Pipette**—quick and accurate manual inoculation of microtitre plates, with enhanced ergonomics.



**Thermo Scientific™ Sensititre AIM™ Automated Inoculation Delivery System**—automatically doses Sensititre plates eliminating skipped wells and costly repeat tests.

► See page 8

## Inoculate

<sup>1</sup> Gram negative anaerobe susceptibility testing in clinical isolates using Sensititre and Etest methods.  
C. Hughes, C. Ashurst-Smith, J.K. Ferguson. Pathology Volume 50, Issue 4, June 2018.



Choose from a full range of standard AST plates to use with the Sensititre AST System or design your own customized plate tailored to your formulary with access to over 300 antimicrobials and broad dilution ranges. Consolidate your susceptibility testing on a single platform.

The Sensititre System is a scalable and flexible solution, accommodating microbiology laboratories of all sizes:

### Incubate



**Sensititre ARIS HiQ System**—individually incubates 100 MIC, breakpoint or identification plates, ensuring optimal growth conditions and eliminating repeat tests.

► See page 6

### Read



**Sensititre ARIS HiQ System**—automatically incubates and reads up to 100 Sensititre ID and AST plates to improve lab efficiency without sacrificing accuracy.

► See page 6



**Thermo Scientific™ Sensititre™ OptiRead™ Automated Fluorometric Plate Reading System**—utilizes fluorescence detection technology to automate Sensititre plate reading, delivering fast, accurate results, and directly linking to the Sensititre SWIN Software System to automate interpretation and result reporting.

► See page 9



**Thermo Scientific™ Sensititre™ Vizion™ Digital MIC Viewing System**—captures and stores easy-to-read digital plate images for optimized manual reading and traceability and connects to the Sensititre SWIN Software System for automated interpretation and reporting of results.

► See page 8



**Thermo Scientific™ Sensititre™ Manual Viewer**—perform simple visual reads of your 96-well microtitre plates with our mirrored viewbox.

### Interpret



**Thermo Scientific™ Sensititre™ SWIN™ Software System, Complete**—consolidates Sensititre results from manual and automated reading options on a single software platform.



**Sensititre SWIN Epidemiology Module**—provides comprehensive reporting of AST results to help detect, monitor, and investigate local antibiotic resistance patterns to facilitate decision-making and support antimicrobial stewardship programs.

\* The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information. Thermo Fisher Scientific products are distributed globally so uses, applications, and availability of product in each country depend on local regulatory marketing authorization status.

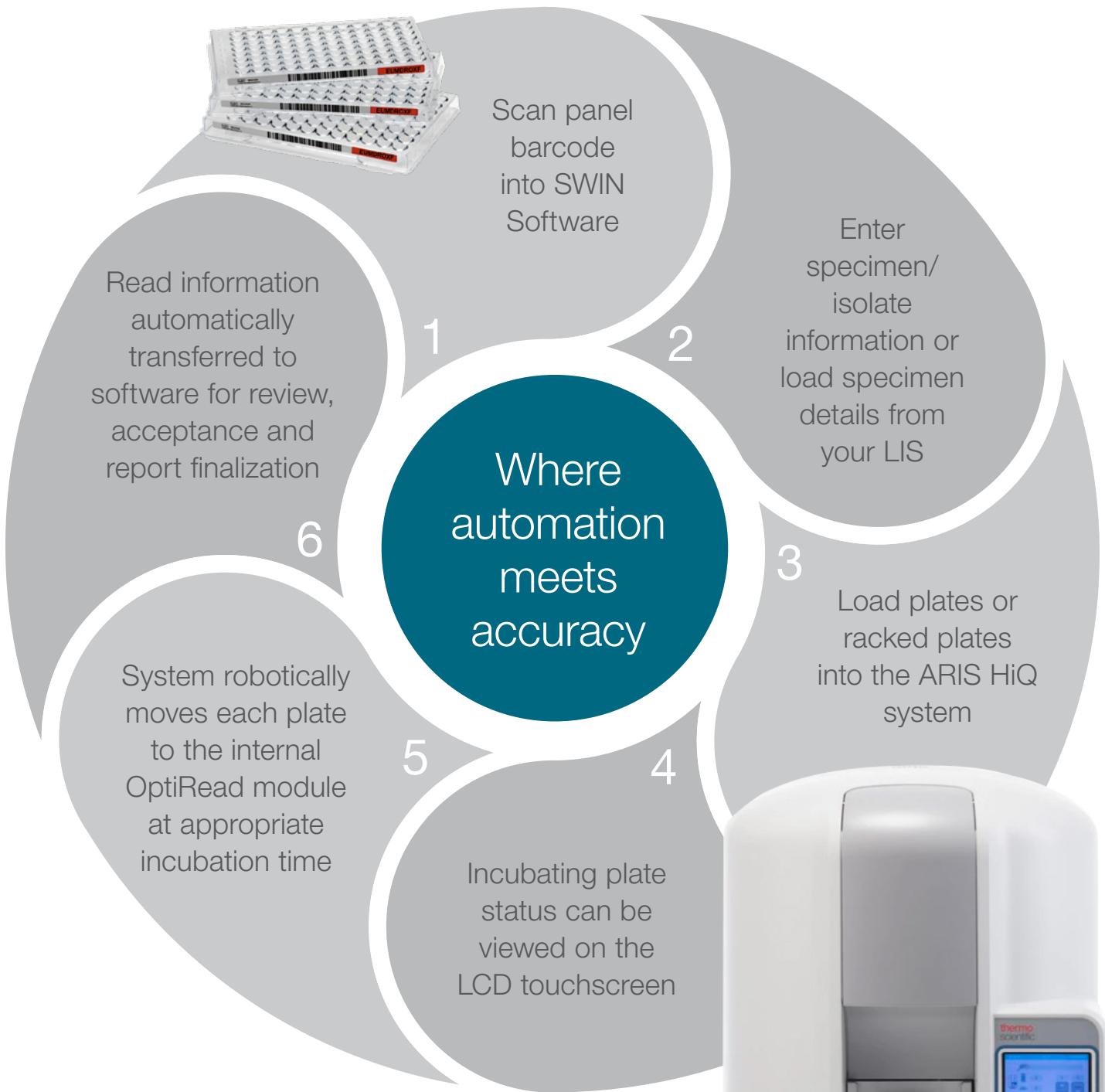
# Thermo Scientific Sensititre ARIS HiQ System

The Sensititre System utilizes gold standard-equivalent MIC accuracy, providing superior quality and reproducibility for accurate results the first time. Reduce the number of re-tests and confirmatory tests required, saving time, and decreasing costs, and report results with more confidence.

Choose from a full range of standard AST plates to use with the Thermo Scientific Sensititre ARIS HiQ System or design your own customized plate tailored to your formulary with access to over 300 antimicrobials and broad dilution ranges.

- Immediate easy access with intuitive integrated LCD touchscreen user-interface. Access critical test information 24/7 directly at instrument, on software or through an LIS interface
- Automated reads deliver worry-free results. Streamlined workflow with flexible load/unload capabilities via removable plate racks, enhanced loading and batch load/unload functions
- A large capacity with a small footprint, the ARIS HiQ offers automated processing of up to 100 plates all handled by an internal robotic arm working in tandem with advanced plate sorting algorithms to deliver efficient plate removal





# Vizion Digital MIC Viewing System

Manual Sensititre Plate reading with the Vizion System generates digital plate images for efficient and accurate reading/recording, and via the Sensititre SWIN Software enables interpretation of antimicrobial susceptibility plate results.

Plates can be quickly inserted into the loading tray, with user customizable lighting options to facilitate optimal calibration for each organism type. Directly select microbial inhibitory concentrations (MIC) on-screen, within a predefined supportive template.

The Vizion System reduces risk associated with manual recording errors, and delivers immediate data review options to apply interpretations, access the Expert System, or transfer results through the laboratory information management system (LIS/LIMS).



- Semi-automated touchscreen driven reading and interpretation with an auditable/recorded reference image
- Works in parallel with SWIN Software offering LIS connectivity

# Sensititre AIM Automated Inoculation Delivery System

Quickly and accurately dose 96-well microtitre Sensititre Plates, eliminating both skipped wells and costly repeat tests, with the Sensititre AIM. Simply select dosing volume and pattern, with the easy-to-use, icon-driven touch screen for simple, intuitive plate inoculation.

By minimizing sample contact the AIM System mitigates risks associated with cross-contamination, aerosol exposure, and bio-hazardous spills.

The compact, user-friendly design, also reduces risks associated with skipped wells and pipetting errors.



- Accurate dosing of Sensititre plates
- Intuitive icon-driven touch screen
- Reduces the risk of pipetting errors and skipped wells

# OptiRead Automated Fluorometric Plate Reading System

Maximize consistency and eliminate manual reading errors with fast, accurate and automated Sensititre plate reads using the OptiRead Automated Fluorometric Plate Reading System.

The OptiRead System uses fluorescent detection technology to automate Sensititre plate reading, delivering fast, accurate results, and directly linking to the Sensititre SWIN Software System to automate interpretation and result reporting. Quickly transfer test results for processing, interpretation and report generation, thus improving laboratory efficiency and productivity. Combining user-friendly automation in a compact, lightweight design, the OptiRead System facilitates efficient workflows for busy laboratories that value consistent reporting standards.

- Fast fluorescent Sensititre plate reads
- Eliminate manual reading steps, improve laboratory efficiency and productivity
- Automated read, interpretation and results reporting
- Maintain consistent reporting standards



## Nephelometer

Optimize performance and achieve accurate results by standardizing bacterial suspension density with the Nephelometer.

Designed to rapidly prepare a consistent inoculum density, the easy-to-read LED indicator light offers a quick methodology to produce bacterial suspensions equivalent to the required 0.5 McFarland Standard.

The Sensititre Nephelometer reduces the risk of manual errors associated with targeting numeric values, by guiding the user to increase/decrease the concentration of emulsified test colonies, until a green “in range” result is achieved – indicating that the suspension is ready for addition to the chosen test broth.

# The value of accurate MICs supports future stewardship

Health care practitioners have known for some time that delivering continuous improvements to antibiotic stewardship efforts relies on striving to select the most appropriate antibiotic, at the right dose, followed by pathogen-specific antibiotic therapy with an appropriate duration<sup>1</sup>.

Broth microdilution is the reference method for antimicrobial susceptibility testing<sup>2</sup>, and this will remain the case in the foreseeable future even with improving molecular techniques (that act as useful pre-screening predictive tools), as there is still a significant level of resistance to antimicrobials that is not explained by DNA genetics alone<sup>3</sup>. Sensititre Systems use broth microdilution to deliver a minimum inhibitory concentration (MIC) that details the level of antimicrobial required to achieve inhibition against the tested clinical isolate.

Less favorable outcomes frequently occur when patients are given low doses<sup>4</sup>, where organisms for which MICs are at the marginal

points of susceptibility are more likely to develop resistance. This is particularly significant when treating marginally susceptible species, where clinical success is more likely if the right dosing strategy is applied, as well as the right antibiotic - and confidence in the accuracy of MIC data gives further assurance in treatment strategy.

Some AST systems calculate the MIC value by extrapolating growth curves and applying dedicated algorithms<sup>5</sup>. The Sensititre System generates true MIC values based on actual growth of the organism. An accurate MIC not only reveals the difference between whether a bacterial isolate is susceptible but also how susceptible the organism is against a particular drug, and the exact point at which the isolate becomes resistant. When comparing your MIC results against the latest clinical breakpoints from EUCAST and CLSI, you can trust the value of a true MIC to deliver the accuracy required for optimal patient outcomes, and to track emerging resistance.

**“To be able to get an accurate measurement of MIC for very specific drugs like vancomycin, for me, is wonderfully valuable.”**

Dr. James McKinnell, Assistant Professor of Medicine, David Geffen School of Medicine, University of California, Los Angeles

1 Antimicrobial Stewardship. Shira Doron, MD and Lisa E. Davidson, MD. Mayo Clin Proc. 2011 Nov; 86(11): 1113–1123.

2 Reading and understanding an antibiogram. Tascini, C. *et al.* Italian Journal of Medicine 2016; volume 10:289-300

3 Innovative and rapid antimicrobial susceptibility testing systems. van Belkum, A., Burnham, C.A.D., Rossen, J.W.A. *et al.* Nat Rev Microbiol 18, 299–311 (2020).

4 Pharmacodynamics of intravenous ciprofloxacin in seriously ill patients. Forrest A, *et al.* Antimicrob Agents Chemother. 1993;5:1073–81.

5 MIC-based dose adjustment: facts and fables. Mouton JW, Muller AE, Canton R, Giske CG, Kahlmeter G, Turnidge J. J Antimicrob Chemother. 2018 Mar 1;73(3):564-568



ThermoFisher  
SCIENTIFIC

# Custom capabilities

Transform your susceptibility testing to meet the demands of your stewardship program and the needs of your unique formulary requirements or patient population. With access to over 300 antimicrobials at customized dilutions, tailor-made AST couldn't be simpler.

The Sensititre System's custom plate capabilities enable you to design a plate format tailored to your formulary for clinical, veterinary and surveillance applications.

Let us help you identify the custom AST solution that fits the needs of your lab.

## Greater flexibility

Over 300 antimicrobials available for clinical, veterinary and surveillance applications; available as frozen or dried formats

## Performance

Superior reproducibility for accurate results, first time; consolidate testing onto one format to reduce unnecessary testing protocols, off line testing and associated costs

## Custom design

Easily adapt formulary requirements and prescription protocols to monitor local resistance

## Scalable

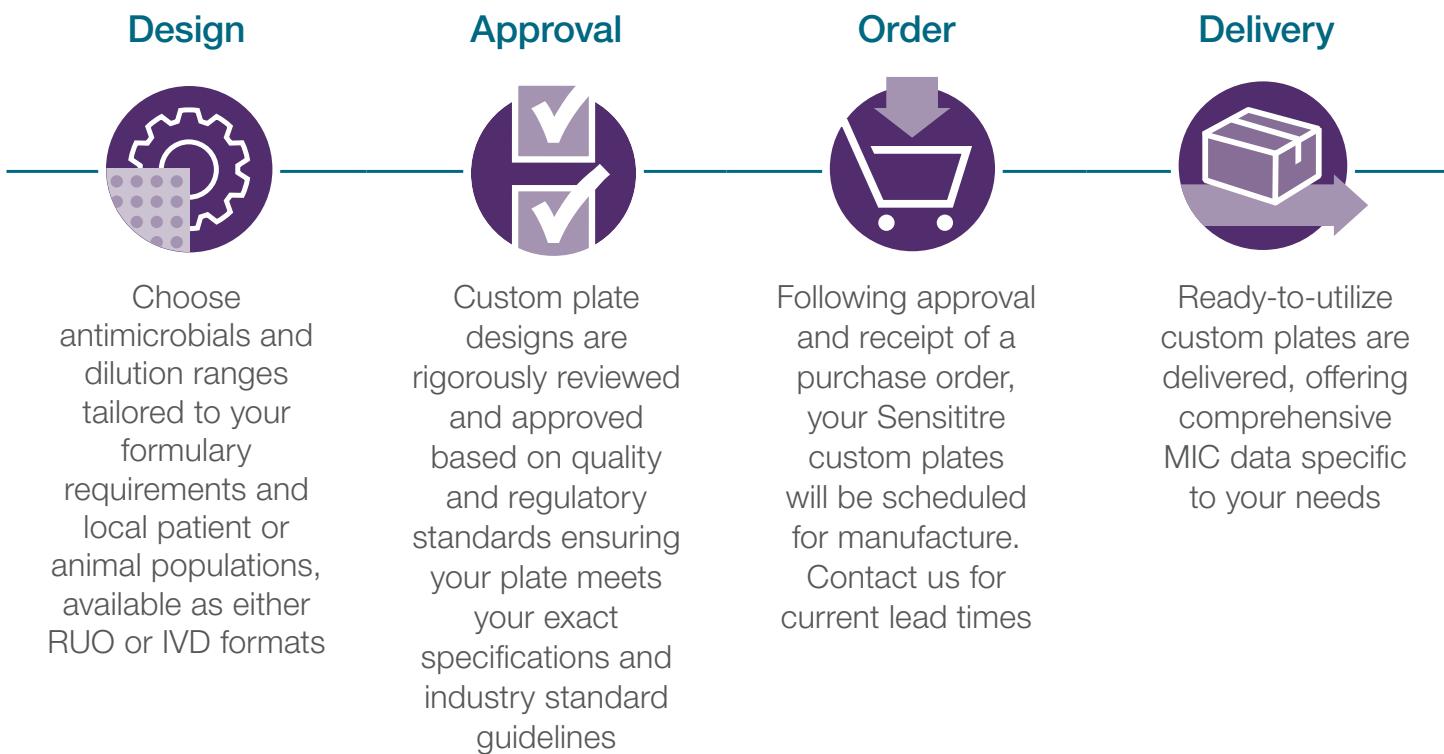
Choose from a variety of flexible instrumentation options to streamline your workflow and meet your specific workload and budget requirements



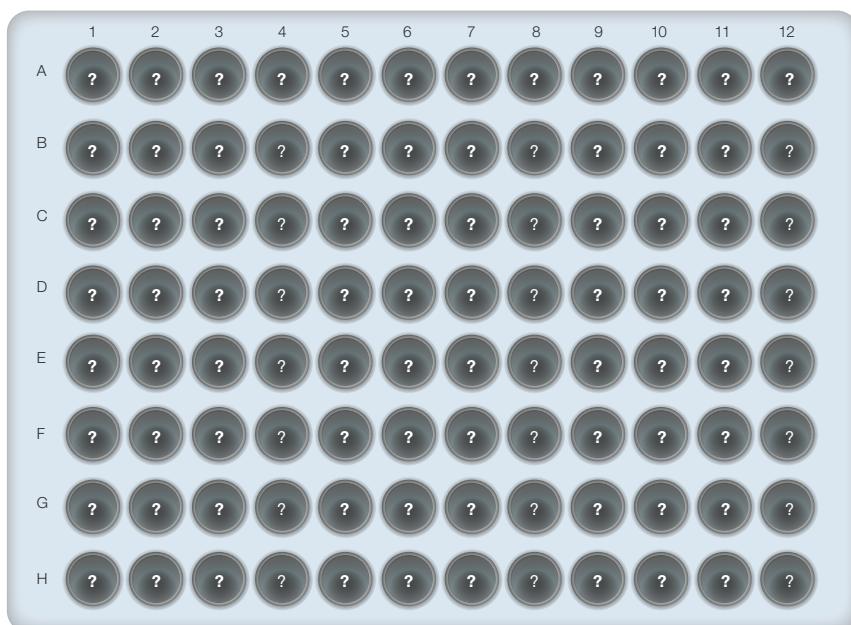
Join the global initiative to combat antimicrobial resistance through the effective use of antimicrobials in children, young people, adults and animals by assisting your clinical colleagues in delivering accurate and actionable MIC results tailored to your patient or animal population.

# Four simple steps to designing your custom plate

Our team of microbiology experts will guide you through the Sensititre custom plate process from design to delivery.



Choose any combination from over 300 antimicrobials





Not only is it critical to identify new antimicrobics but also to incorporate them into a reliable testing device to accurately negotiate optimum patient treatment.

Treating multi-drug resistant infections and monitoring emergent multi-drug resistance is more important now than ever. Increasingly, there are fewer antimicrobial drugs available to effectively treat common as well as life-threatening infections\*.

With this in mind, we are dedicated in our collaboration with pharmaceutical companies developing new antimicrobials and expediting their incorporation into our gold standard-equivalent<sup>1</sup> Sensititre plate portfolio. If you require early access to a broth microdilution (BMD) MIC test, Sensititre is the only platform to offer a solution.

The latest antimicrobials include:

- Cefiderocol
- Imipenem/relebactam
- Meropenem/vaborbactam

Reduce offline testing, improve workflow efficiencies and provide accurate MIC results with Sensititre AST plates in off-the shelf, standard formats or customized to your specific needs.

“Current research has demonstrated that the spread of multi-drug resistant organisms are largely driven by the physical movement of patients. As a result, hospitals that have never seen a pan-resistant *Acinetobacter baumanii* or pan beta-lactam-resistant *Pseudomonas aeruginosa* are only one admission away from seeing their first case<sup>2</sup>.”

MDRO FORMATS	MDRGN2F	MDRGNX2F	EUMDROXF	CUSTOM CAPABILITIES
--------------	---------	----------	----------	---------------------

Jump to page ► **20** **21** **25** **12**

\* World Health Organization, 2014. Antimicrobial resistance global report on surveillance.  
1. Gram negative anaerobe susceptibility testing in clinical isolates using Sensititre and ETest methods.  
C. Hughes, C. Ashurst-Smith, J.K. Ferguson. Pathology Volume 50, Issue 4, June 2018.  
2. Dr. James McKinell, Associate Professor of Medicine, David Geffen School of Medicine, University of California, Los Angeles.  
Thermo Fisher Scientific products are distributed globally so uses, applications, and availability of product in each country depend on local regulatory marketing authorization status.

# Sensititre surveillance plates supporting One Health initiatives

The Sensititre System provides a standardized antimicrobial resistance (AMR) surveillance tool to support public health and national reference laboratories initiatives towards One Health<sup>3</sup> by enabling their compliance to government surveillance mandates.

Committed to combatting AMR, the European Commission has implemented legislation on harmonised monitoring of AMR in zoonotic and commensal bacteria in food-producing animals and derived meat. In order to gain accurate, quantitative data on emerging resistance patterns new Sensititre surveillance plates were developed in collaboration with the European food and veterinary network to support the European surveillance testing program – see new plate formats on pages 60-66.



As the threat of antimicrobial resistance escalates, faster, more accurate testing of an ever-evolving range of infections is vital to improving patient outcomes.

## Clinical standard plate formats

		GRAM NEGATIVE First line			GRAM NEGATIVE Second line			NON-FERMENTERS	URINES	ESBLs		
INSTRUMENTS	USE AND METHODOLOGY	GN4F	GN6F	GN7F	EUGNF	GNX4F	EUMDROF	DKMGN	EURGNCOL	EUX2NF	GNUR3F	GNUR2F
FLUORESCENT PLATES	AUTOREAD (ARIS HiQ, OptiRead, manual viewer, Vizion)	IVD-FDA (CLSI)	●	●	●					●	●	●
		RUO (CLSI)					●	●	●			
		IVD-CE (CLSI)	●	●								●
		IVD-CE (EUCAST)				●			●	●		
NON-FLUORESCENT PLATES	SEMI-AUTOMATED AND MANUAL READ (Manual viewer, Vizion)	IVD-FDA (CLSI)										
		RUO (CLSI)										
		IVD-CE (CLSI)										
		IVD-CE (EUCAST)							●	●		

Jump to page ► 18 19 20 21 22 23

24

26 27

28 29



	GRAM POSITIVE		FASTIDIOUS	ANAEROBES	YEAST		MYCOBACTERIA	
	●	●	●		●	●		
	●	●						
			●		Y010	Y09		
					Y08			
					Y03WD			
					Y02WD			
					ANAFR03			
					AN02B			
					HPB1			
					FDANDSF			
					STR6F			
					FR1STENT			
					EUENCF			
					EUSTAPF			
					GPALL3F			
					GPALL1F			
					FDANDPF			
30	31	32	33	34	35	36	37	39
40	41	42	43	44	45	46	47	

Thermo Fisher Scientific products are distributed globally so uses, applications, and availability of product in each country depend on local regulatory marketing authorization status.

# Sensititre Gram Negative GN7F Plate

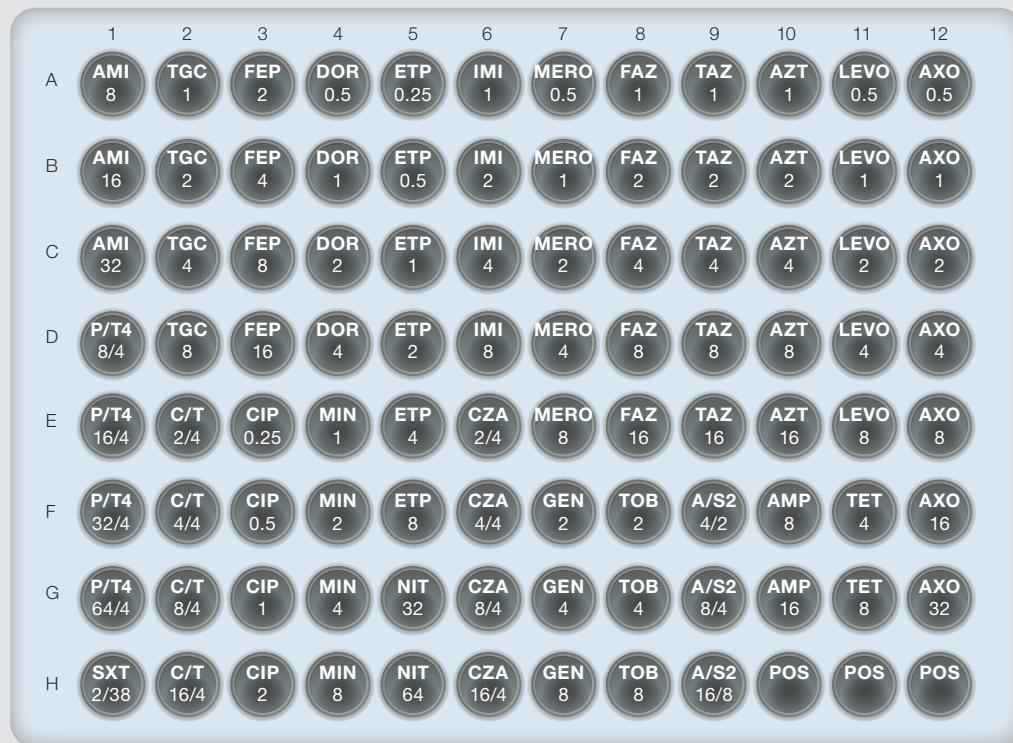
Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing non-fastidious Gram negative organisms	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	<b>Inoculum preparation</b>		
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)		
Additional QC strains used for product release			
			R4607030 <i>Enterococcus faecalis</i> ATCC <sup>®</sup> 29212 <sup>TM</sup>
			R4607011 <i>Staphylococcus aureus</i> ATCC <sup>®</sup> 29213 <sup>TM</sup>

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL\*\*, or 30 µL\*\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

A/S2	Ampicillin/Sulbactam 2:1 ratio
AMI	Amikacin
AMP	Ampicillin
AXO	Ceftriaxone
AZT	Aztreonam
C/T	Ceftolozane/Tazobactam 4
CIP	Ciprofloxacin
CZA	Ceftazidime/Avibactam
DOR	Doripenem
ETP	Ertapenem
FAZ	Cefazolin
FEP	Cefepime
GEN	Gentamicin
IMI	Imipenem
LEVO	Levofloxacin
MERO	Meropenem
MIN	Minocycline
NIT	Nitrofurantoin
P/T4	Piperacillin/Tazobactam constant 4
POS	Positive Control
SXT	Trimethoprim/Sulfamethoxazole
TAZ	Ceftazidime
TET	Tetracycline
TGC	Tigecycline
TOB	Tobramycin

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.  
The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Negative EUGNF Plate

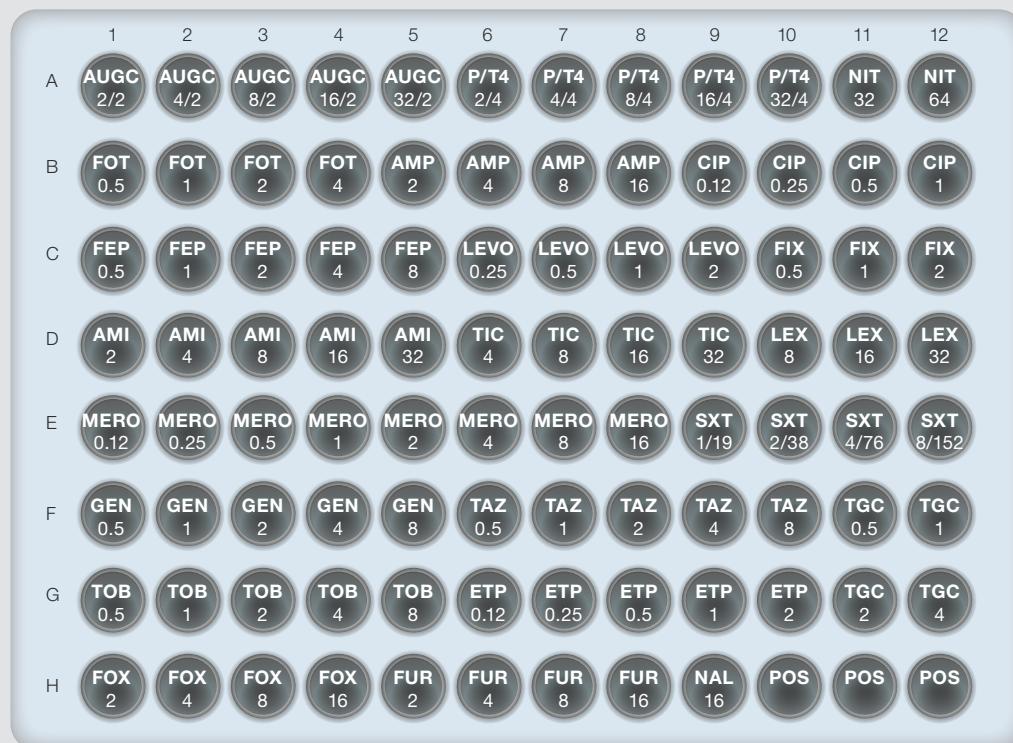
Intended use	Read method	EUCAST recommended routine QC strains	
Antimicrobial susceptibility plate for testing non-fastidious Gram negative organisms	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
		R4607050	<i>Escherichia coli</i> ATCC <sup>®</sup> 25922 <sup>TM</sup>
		R4601971	<i>Escherichia coli</i> ATCC <sup>®</sup> 35218 <sup>TM</sup>
		R4603074	<i>Klebsiella pneumoniae</i> ATCC <sup>®</sup> 700603 <sup>TM</sup>
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC <sup>®</sup> 27853 <sup>TM</sup>
Broth type		Additional QC strains used for product release	
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607030	<i>Enterococcus faecalis</i> ATCC <sup>®</sup> 29212 <sup>TM</sup>
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC <sup>®</sup> 29213 <sup>TM</sup>

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL\*\*, or 30 µL\*\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

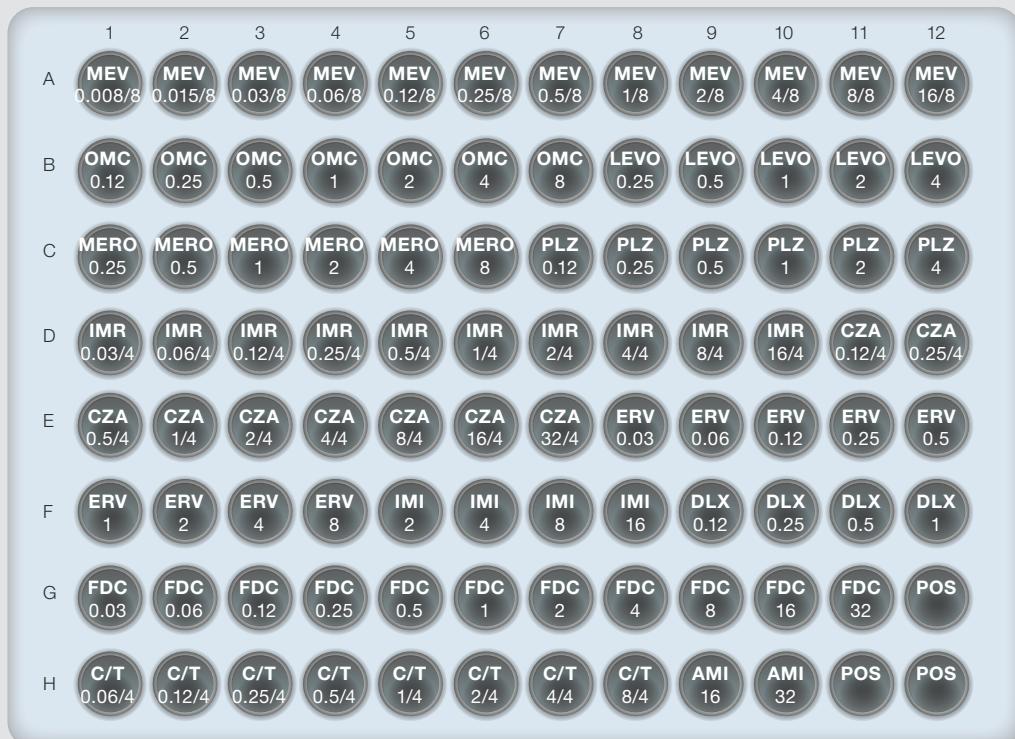
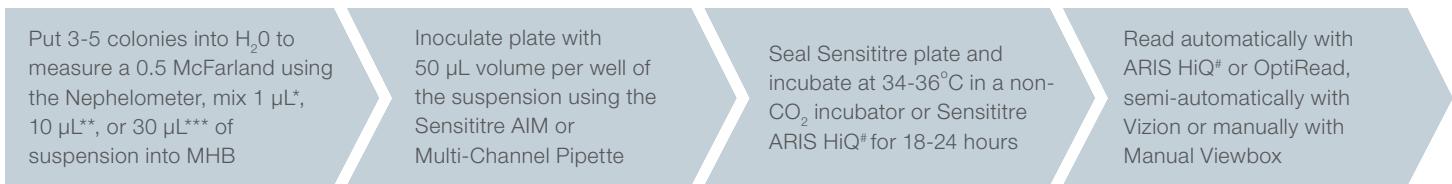
AMI	Amikacin
AMP	Ampicillin
AUGC	Amoxicillin / Clavulanic acid constant 2
CIP	Ciprofloxacin
ETP	Ertapenem
FEP	Cefepime
FIX	Cefixime
FOT	Cefotaxime
FOX	Cefoxitin
FUR	Cefuroxime
GEN	Gentamicin
LEVO	Levofloxacin
LEX	Cephalexin
MERO	Meropenem
NAL	Nalidixic Acid
NIT	Nitrofurantoin
P/T4	Piperacillin / Tazobactam constant 4
POS	Positive Control
SXT	Trimethoprim / Sulfamethoxazole
TAZ	Ceftazidime
TGC	Tigecycline
TIC	Ticarcillin
TOB	Tobramycin

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.  
The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Negative MDRGN2F Plate

including the latest antimicrobials cefiderocol and imipenem/relebactam

Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Antimicrobial susceptibility plate for testing non-fastidious Gram negative organisms isolated from difficult to treat infections	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	R4607050	<i>Escherichia coli</i> ATCC® 25922™
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4609384	<i>Klebsiella pneumoniae</i> ATCC® BAA-1705™
		R4601316	<i>Klebsiella pneumoniae</i> ATCC® BAA-2814™
		R4603074	<i>Klebsiella pneumoniae</i> ATCC®700603™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
Additional QC strains used for product release		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™



## Antimicrobics

AMI	Amikacin
FDC	Cefiderocol
CZA	Ceftazidime/Avibactam
C/T	Ceftolozane/Tazobactam 4
DLX	Delafloxacin
ERV	Eravacycline
IMI	Imipenem
IMR	Imipenem/Relebactam
LEVO	Levofloxacin
MERO	Meropenem
MEV	Meropenem/Vaborbactam
OMC	Omadacycline
PLZ	Plazomicin
POS	Positive Control

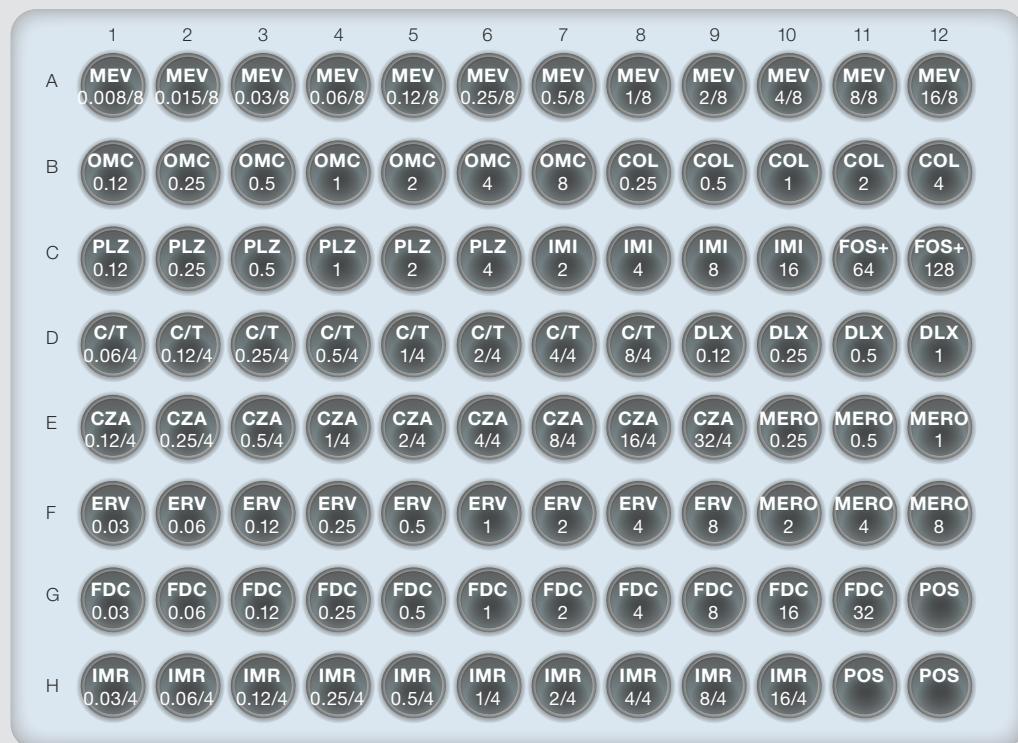
\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.

\*The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Negative MDRGNX2F Plate

including the latest antimicrobials cefiderocol and imipenem/relebactam, in addition to colistin and fosfomycin

Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing non-fastidious Gram negative organisms isolated from difficult to treat infections	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
<b>Broth type</b>	<b>Inoculum preparation</b>	R4607050	<i>Escherichia coli</i> ATCC® 25922™
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4609384	<i>Klebsiella pneumoniae</i> ATCC® BAA-1705™
		R4601316	<i>Klebsiella pneumoniae</i> ATCC® BAA-2814™
		R4603074	<i>Klebsiella pneumoniae</i> ATCC® 700603™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		Additional QC strains used for product release	
		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™



## Antimicrobics

FDC	Cefiderocol
CZA	Ceftazidime/Avibactam
C/T	Ceftolozane/Tazobactam 4
COL	Colistin
DLX	Delafloxacin
ERV	Eravacycline
FOS+	Fosfomycin+glucose-6-phosphate
IMI	Imipenem
IMR	Imipenem/Relebactam
MERO	Meropenem
MEV	Meropenem/Vaborbactam
OMC	Omadacycline
PLZ	Plazomicin
POS	Positive Control

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.

The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Negative GNX3F Plate

## for second-line testing including colistin

Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Antimicrobial susceptibility plate for testing non-fastidious Gram negative organisms isolated from difficult to treat infections	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	R4607050	<i>Escherichia coli</i> ATCC® 25922™
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4603074	<i>Klebsiella pneumoniae</i> ATCC®700603™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
Additional QC strains used for product release		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL\*\*, or 30 µL\*\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox

A	1 AMI 4	2 GEN 1	3 TOB 1	4 CIP 0.06	5 SXT 0.5/9.5	6 AZT 2	7 FEP 2	8 COL 0.25	9 COL 0.5	10 COL 1	11 COL 2	12 COL 4
B	8 AMI 8	2 GEN 2	2 TOB 2	0.12 CIP 0.12	1/19 SXT 1/19	4 AZT 4	4 FEP 4	0.25 POL 0.25	0.5 POL 0.5	1 POL 1	2 POL 2	4 POL 4
C	16 AMI 16	4 GEN 4	4 TOB 4	0.25 CIP 0.25	2/38 SXT 2/38	8 AZT 8	8 FEP 8	1 TAZ 1	2 TAZ 2	4 TAZ 4	8 TAZ 8	16 TAZ 16
D	32 AMI 32	8 GEN 8	8 TOB 8	0.5 CIP 0.5	4/76 SXT 4/76	16 AZT 16	16 FEP 16	2 FOT 2	4 FOT 4	8 FOT 8	16 FOT 16	32 FOT 32
E	2 DOX 2	2 MIN 2	0.25 TGC 0.25	1 CIP 1	1 LEVO 1	1 IMI 1	1 MERO 1	4/2 A/S2 4/2	8/4 A/S2 8/4	16/8 A/S2 16/8	32/16 A/S2 32/16	64/32 A/S2 64/32
F	4 DOX 4	4 MIN 4	0.5 TGC 0.5	2 CIP 2	2 LEVO 2	2 IMI 2	2 MERO 2	0.5 DOR 0.5	1 DOR 1	2 DOR 2	4 DOR 4	POS POS
G	8 DOX 8	8 MIN 8	1 TGC 1	4 TGC 4	4 LEVO 4	4 IMI 4	4 MERO 4	8/4 P/T4 8/4	16/4 P/T4 16/4	32/4 P/T4 32/4	64/4 P/T4 64/4	POS POS
H	16 DOX 16	16 MIN 16	2 TGC 2	8 TGC 8	8 LEVO 8	8 IMI 8	8 MERO 8	16/2 TIM2 16/2	32/2 TIM2 32/2	64/2 TIM2 64/2	128/2 TIM2 128/2	POS POS

### Antimicrobics

AMI	Amikacin
A/S2	Ampicillin/Sulbactam 2:1 ratio
AZT	Aztreonam
FEP	Cefepime
FOT	Cefotaxime
TAZ	Ceftazidime
CIP	Ciprofloxacin
COL	Colistin
DOR	Doripenem
DOX	Doxycycline
GEN	Gentamicin
IMI	Imipenem
LEVO	Levofloxacin
MERO	Meropenem
MIN	Minocycline
P/T4	Piperacillin/Tazobactam constant 4
POL	Polymixin B
POS	Positive Control
TIM2	Ticarcillin/Clavulanic acid constant 2
TGC	Tigecycline
TOB	Tobramycin
SXT	Trimethoprim/Sulfamethoxazole

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.

\*The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Negative GNX4F Plate

## for second-line testing including colistin

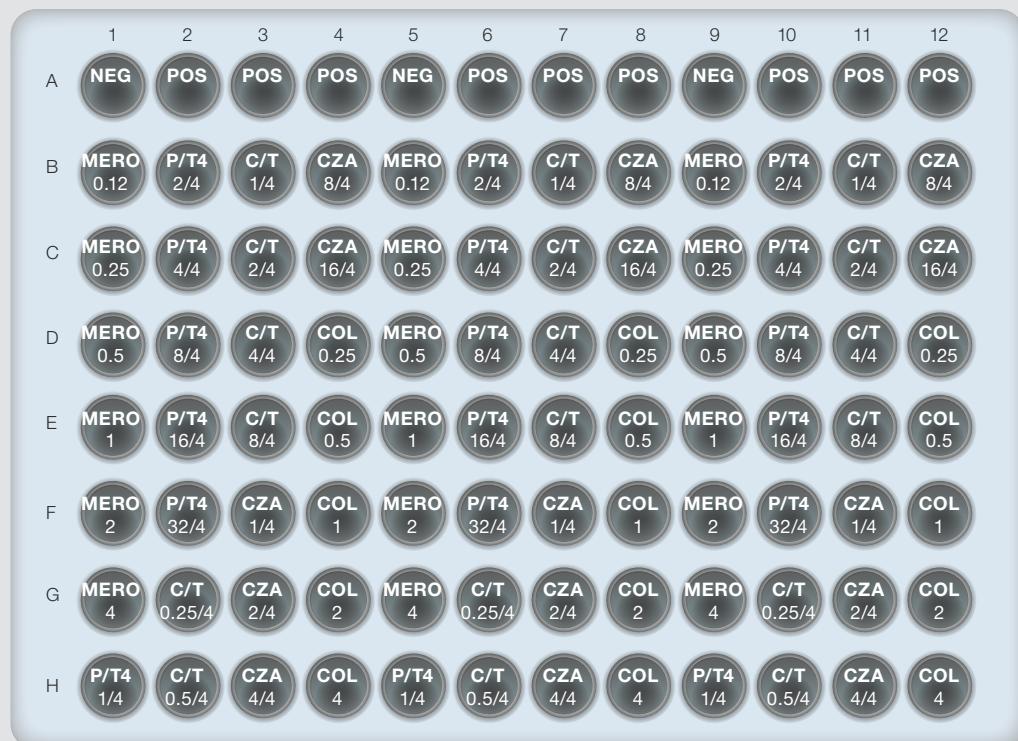
Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
A 3 isolate antimicrobial susceptibility plate for testing non-fastidious Gram negative organisms isolated from difficult to treat infections	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>*</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	R4607050 R4601971 R4603074 R4607060	<i>Escherichia coli</i> ATCC® 25922™ <i>Escherichia coli</i> ATCC® 35218™ <i>Klebsiella pneumoniae</i> ATCC® 700603™ <i>Pseudomonas aeruginosa</i> ATCC® 27853™
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607030 R4607011	Additional QC strains used for product release <i>Enterococcus faecalis</i> ATCC® 29212™ <i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL\*\*, or 30 µL\*\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

<b>CZA</b>	Ceftazidime/Avibactam
<b>C/T</b>	Ceftolozane/Tazobactam 4
<b>COL</b>	Colistin
<b>MERO</b>	Meropenem
<b>NEG</b>	Negative Control
<b>P/T4</b>	Piperacillin/Tazobactam constant 4
<b>POS</b>	Positive Control

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.

The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.



## Earlier access to the latest antimicrobials could provide alternative and effective treatment options for critically ill patients.

Treating multidrug-resistant infections and monitoring emergent multidrug resistance is more important now than ever. Expand your Gram negative organism susceptibility testing options by accessing the latest antibiotics including **cefiderocol, eravacycline, imipenem/relebactam** and **meropenem/vaborbactam**.

Confidently perform EUCAST compliant susceptibility testing of multi-drug resistant Gram negative isolates on a single plate providing clinicians with gold standard equivalent, accurate results<sup>1</sup> to guide optimal treatment decisions.

“Our continued and close collaboration with Pharmaceutical companies developing new antimicrobials, enables early access on multiple AST devices, including standard and customized formats, providing flexibility to meet your manual and/or automated workflow requirements.”



1. International Organization for Standardization (ISO) (2019) *Susceptibility testing of infectious agents and evaluation of performance of antimicrobial susceptibility test devices — Part 1: Broth micro-dilution reference method for testing the in vitro activity of antimicrobial agents against rapidly growing aerobic bacteria involved in infectious diseases*. ISO 20776-1:2019.

Thermo Fisher Scientific products are distributed globally so uses, applications, and availability of product in each country depend on local regulatory marketing authorization status.

Update to EUMDROF to include cefiderocol, eravacycline, imipenem/relebactam and meropenem/vaborbactam. For non-fluorescent format see DKMGN and EUGNCOL

Part no.  
**EUMDROXF**

Use and methodology  
**IVD-CE (EUCAST)**

Region  
**Europe**

Gram negative

Human

# Sensititre Gram Negative EUMDROXF Plate

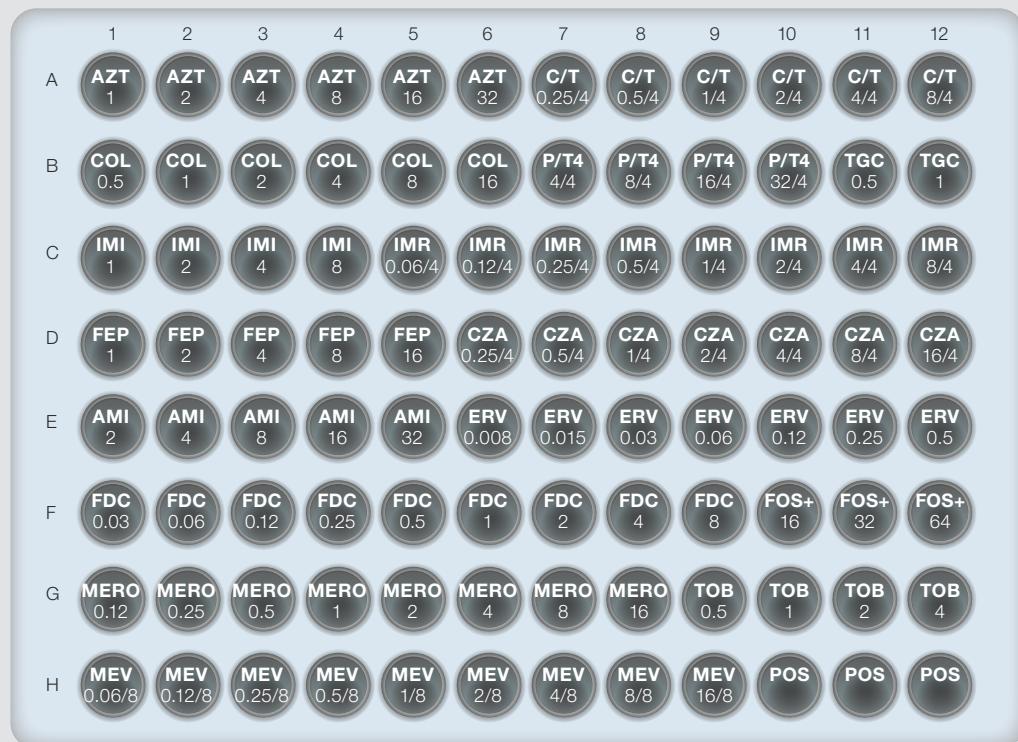
Intended use	Read method	EUCAST recommended routine QC strains	
Antimicrobial susceptibility plate for testing non-fastidious Gram negative isolates	Autoread or manual Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	Inoculum preparation		
Sensititre Mueller Hinton Broth (T3462) <sup>**</sup>	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)		
		Culti-Loops product code      Organism description	
		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4601316	<i>Klebsiella pneumoniae</i> ATCC® BAA-2814™
		R4603074	<i>Klebsiella pneumoniae</i> ATCC®700603™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		R4601314	<i>Escherichia coli</i> NCTC 13846
		Additional QC strains used for product release	
		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
		R4609384	<i>Klebsiella pneumoniae</i> ATCC® BAA-1705™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL\*\*, or 30 µL\*\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup>

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AMI	Amikacin
AZT	Aztreonam
FEP	Cefepime
FDC	Cefiderocol
CZA	Ceftazidime/Avibactam Constant 4
C/T	Ceftolozane/Tazobactam Constant 4
COL	Colistin
ERV	Eravacycline
FOS+	Fosfomycin+glucose-6-phosphate
IMI	Imipenem
IMR	Imipenem/Relebactam Constant 4
MERO	Meropenem
MEV	Meropenem/Vaborbactam Constant 8
P/T4	Piperacillin/Tazobactam Constant 4
POS	Positive Control
TGC	Tigecycline
TOB	Tobramycin

<sup>\*</sup>No special broth required for cefiderocol testing. <sup>\*\*</sup>For *Proteus* spp. <sup>\*\*</sup>For Enterobacteriaceae and Non-Enterobacteriaceae. <sup>\*\*\*</sup>For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae. <sup>#</sup>The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Negative NF Plate

## for non-fermenter isolates

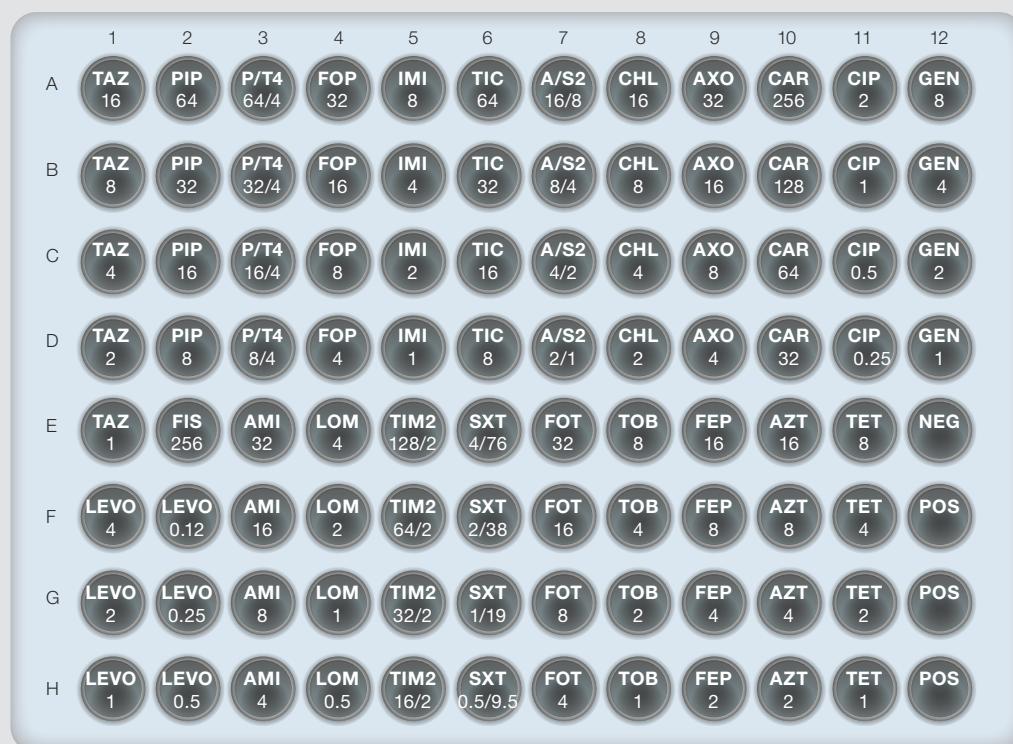
Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing non-fastidious, Gram negative non-fermenter isolates such as <i>Pseudomonas</i> spp. and <i>Acinetobacter</i> spp.	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>*</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4603074	<i>Klebsiella pneumoniae</i> ATCC® 700603™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
Broth type		Additional QC strains used for product release	
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL\*\*, or 30 µL\*\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



### Antimicrobics

AMI	Amikacin
A/S2	Ampicillin/Sulbactam 2:1 ratio
AZT	Aztreonam
CAR	Carbenicillin
FEP	Cefepime
FOP	Cefoperazone
FOT	Cefotaxime
TAZ	Ceftazidime
AXO	Ceftriaxone
CHL	Chloramphenicol
CIP	Ciprofloxacin
GEN	Gentamicin
IMI	Imipenem
LEVO	Levofloxacin
LOM	Lomefloxacin
NEG	Negative Control
PIP	Piperacillin
P/T4	Piperacillin/Tazobactam constant 4
POS	Positive Control
FIS	Sulfisoxazole
TET	Tetracycline
TIC	Ticarcillin
TIM2	Ticarcillin/Clavulanic acid constant 2
TOB	Tobramycin
SXT	Trimethoprim/Sulfamethoxazole

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.  
The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Negative EUX2NF Plate

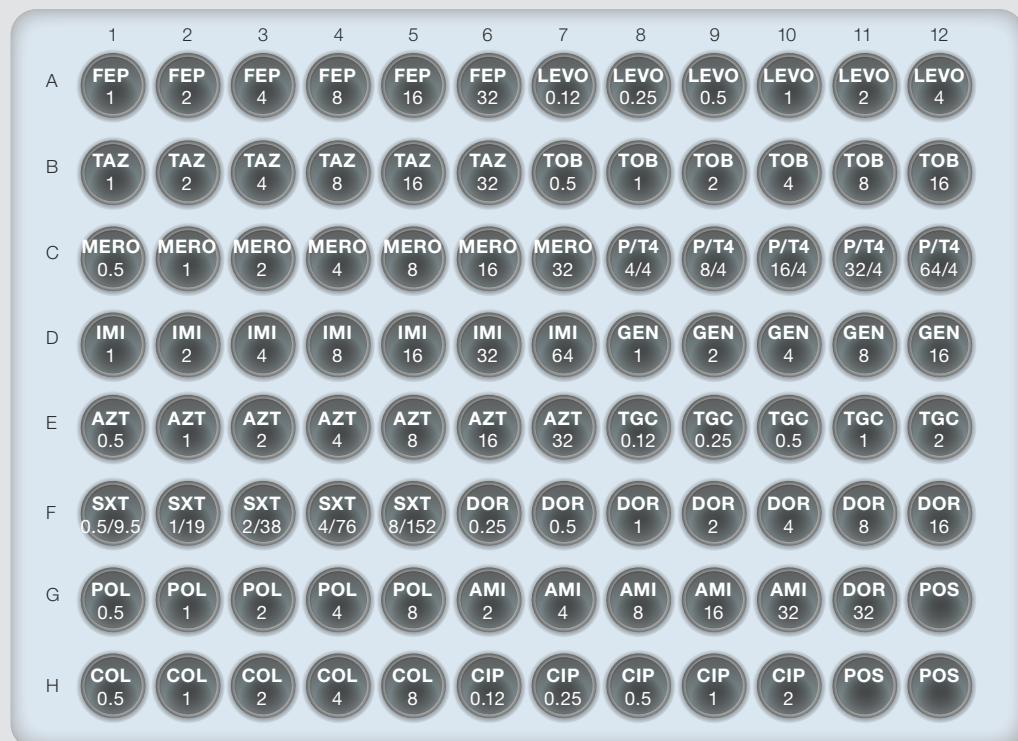
Intended use	Read method	EUCAST recommended routine QC strains	
Antimicrobial susceptibility plate for testing non-fastidious, Gram negative non-fermenter isolates such as <i>Pseudomonas</i> spp. and <i>Acinetobacter</i> spp.	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>*</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
<b>Broth type</b>	<b>Inoculum preparation</b>	R4607050	<i>Escherichia coli</i> ATCC® 25922™
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4603074	<i>Klebsiella pneumoniae</i> ATCC®700603™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		R4601314	<i>Escherichia coli</i> NCTC 13846
		Additional QC strains used for product release	
		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL\*\*, or 30 µL\*\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AMI	Amikacin
AZT	Aztreonam
FEP	Cefepime
TAZ	Ceftazidime
CIP	Ciprofloxacin
COL	Colistin
DOR	Doripenem
GEN	Gentamicin
IMI	Imipenem
LEVO	Levofloxacin
MERO	Meropenem
P/T4	Piperacillin/Tazobactam constant 4
POL	Polymyxin B
POS	Positive Control
TGC	Tigecycline
TOB	Tobramycin
SXT	Trimethoprim/Sulfamethoxazole

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.  
The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Negative GNUR3F Plate

## for urine isolates

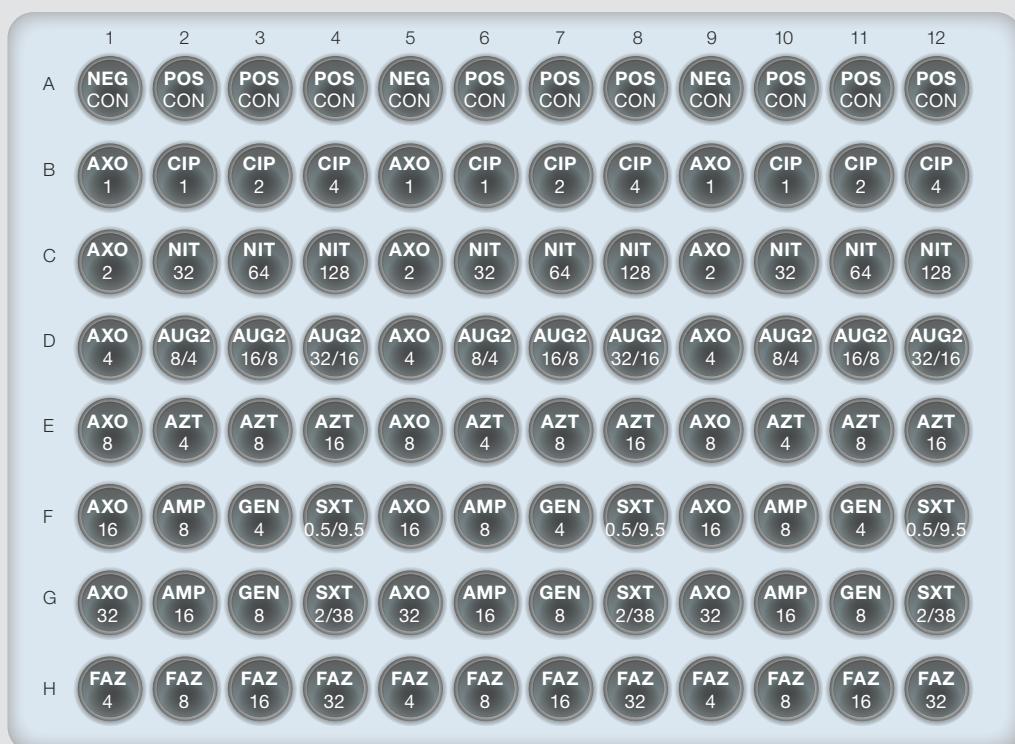
Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing non-fastidious Gram negative organisms isolated from a urine culture	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>*</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
Broth type	<b>Inoculum preparation</b>	Additional QC strains used for product release	
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL\*\*, or 30 µL\*\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AUG2	Amoxicillin/Clavulanic acid 2:1 ratio
AMP	Ampicillin
AZT	Aztreonam
FAZ	Cefazolin
AXO	Ceftriaxone
CIP	Ciprofloxacin
GEN	Gentamicin
NEG	Negative Control
NIT	Nitrofurantoin
POS	Positive Control
SXT	Trimethoprim/Sulfamethoxazole

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.

The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Negative ESB1F Plate

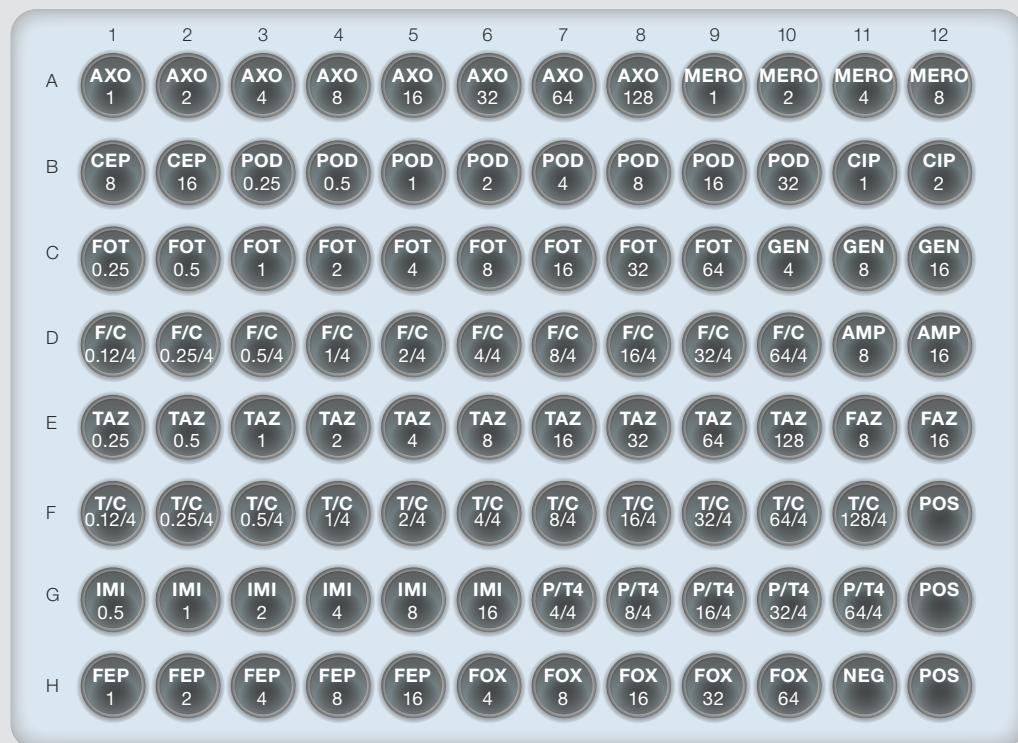
Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing extended-spectrum β-lactamase (ESBL) producing non-fastidious Gram negative isolates.	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
<b>Broth type</b>	<b>Inoculum preparation</b>	R4607050	<i>Escherichia coli</i> ATCC® 25922™
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4603074	<i>Klebsiella pneumoniae</i> ATCC® 700603™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		Additional QC strains used for product release	
		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL\*\*, or 30 µL\*\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AMP	Ampicillin
FAZ	Cefazolin
FEP	Cefepime
FOT	Cefotaxime
F/C	Cefotaxime/Clavulanic acid
FOX	Cefoxitin
POD	Cephalodime
TAZ	Ceftazidime
T/C	Ceftazidime/Clavulanic acid
AXO	Ceftriaxone
CEP	Cephalothin
CIP	Ciprofloxacin
GEN	Gentamicin
IMI	Imipenem
MERO	Meropenem
NEG	Negative Control
P/T4	Piperacillin/Tazobactam constant 4
POS	Positive Control

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.  
The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Positive GPALL1F Plate

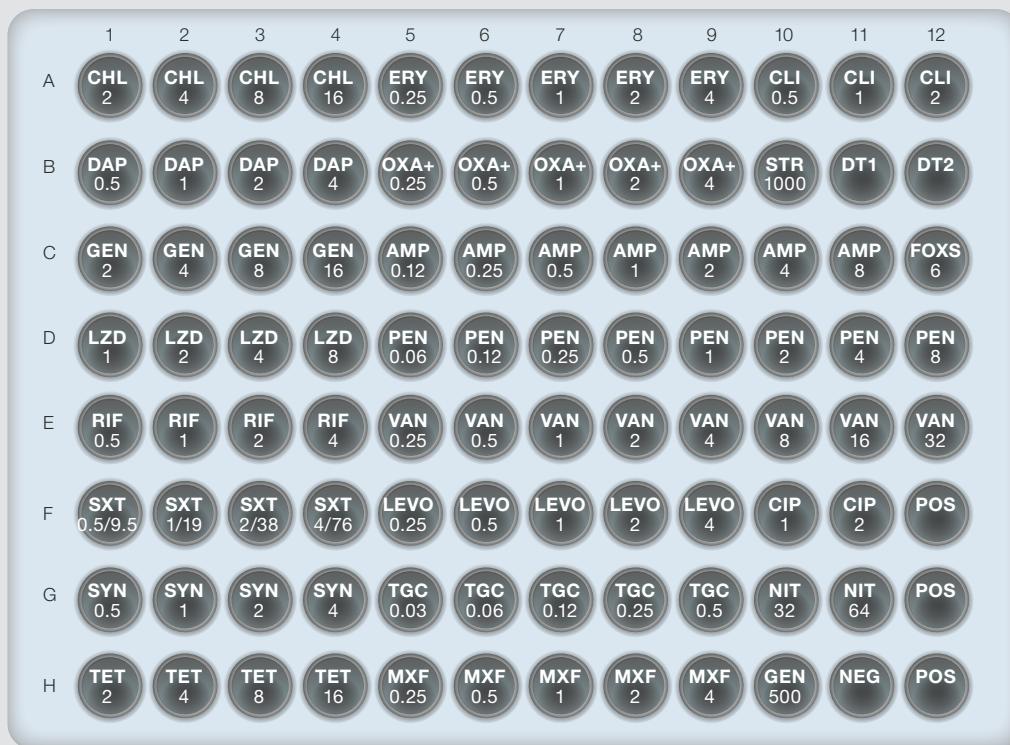
Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing non-fastidious Gram positive isolates	<b>Autoread or Manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
<b>Broth type</b>		<b>Inoculum preparation</b>	
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)		
		Additional QC strains used in product release testing	
		R4607050	<i>Escherichia coli</i> ATCC <sup>®</sup> 25922 <sup>TM</sup>
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC <sup>®</sup> 27853 <sup>TM</sup>
		R4606513	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC <sup>®</sup> BAA-977 <sup>TM</sup>
		R4601996	<i>Enterococcus faecalis</i> ATCC <sup>®</sup> 51299 <sup>TM</sup>
		CLSI recommended supplemental quality control:	
		R4606513	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC <sup>®</sup> BAA-977 <sup>TM</sup>
		R4601996	<i>Enterococcus faecalis</i> ATCC <sup>®</sup> 51299 <sup>TM</sup>

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 10 µL or 30 µL\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AMP	Ampicillin
FOX <sub>S</sub>	Cefoxitin screen
CHL	Chloramphenicol
CIP	Ciprofloxacin
CLI	Clindamycin
DT1	D Test 1
DT2	D Test 2
DAP	Daptomycin
ERY	Erythromycin
GEN	Gentamicin
LEVO	Levofloxacin
LZD	Linezolid
MXF	Moxifloxacin
NEG	Negative control
NIT	Nitrofurantoin
OXA+	Oxacillin + 2% NaCl
PEN	Penicillin
POS	Positive control
SYN	Quinupristin/Dalfopristin
RIF	Rifampin
STR	Streptomycin
TET	Tetracycline
TGC	Tigecycline
SXT	Trimethoprim/Sulfamethoxazole
VAN	Vancomycin

\*For aid in detection of resistance mechanisms for Gram positive organisms. <sup>#</sup>The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Positive EUSTAPF Plate

## with ceftaroline and telavancin

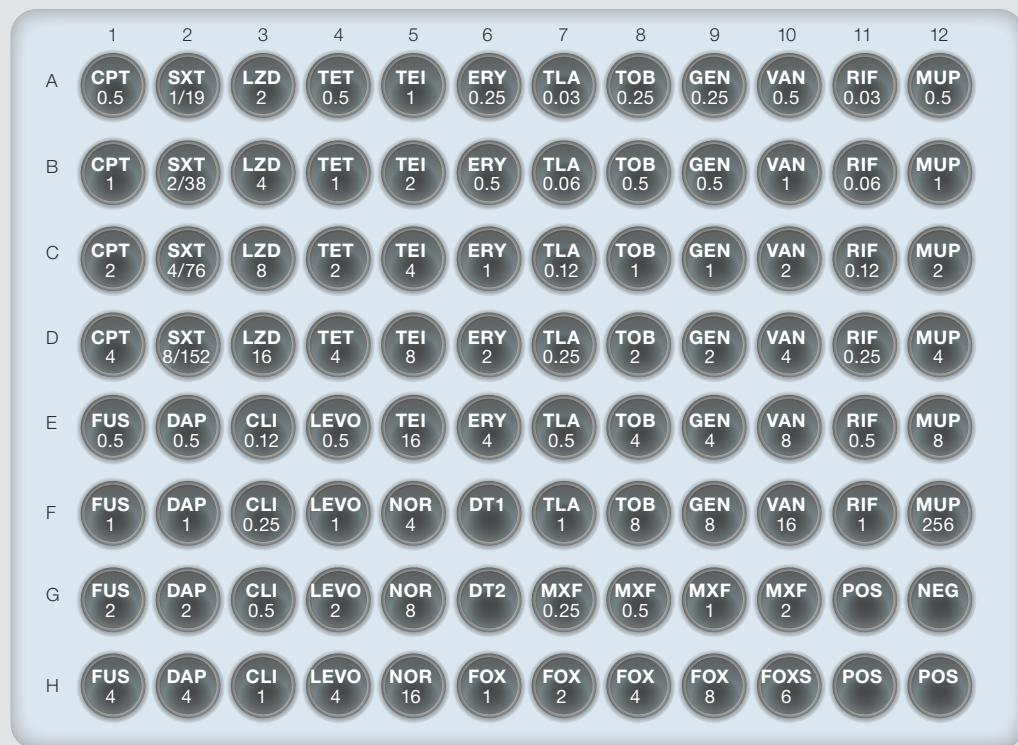
Intended use	Read method	EUCAST recommended routine QC strains	
Antimicrobial susceptibility plate for testing <i>Staphylococcus</i> species isolates	<b>Autoread or Manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
Additional QC strains used in product release testing			
Broth type		R4607050	<i>Escherichia coli</i> ATCC® 25922™
Sensititre Mueller Hinton Broth (T3462)		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		R4606512	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® BAA-976™
		R4606513	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® BAA-977™
		R4607010	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 25923™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 10 µL or 30 µL\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



### Antimicrobics

FOX	Cefoxitin
FOXS	Cefoxitin screen
CPT	Ceftaroline
CLI	Clindamycin
DT1	D Test 1
DT2	D Test 2
DAP	Daptomycin
ERY	Erythromycin
FUS	Fusidate
GEN	Gentamicin
LEVO	Levofloxacin
LZD	Linezolid
MXF	Moxifloxacin
MUP	Mupirocin
NEG	Negative control
NOR	Norfloxacin
POS	Positive control
RIF	Rifampin
TEI	Teicoplanin
TLA	Telavancin
TET	Tetracycline
TOB	Tobramycin
SXT	Trimethoprim/Sulfanethoxazole
VAN	Vancomycin

\*For aid in detection of resistance mechanisms for Gram positive organisms. <sup>#</sup>The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Gram Positive EUENCF Plate

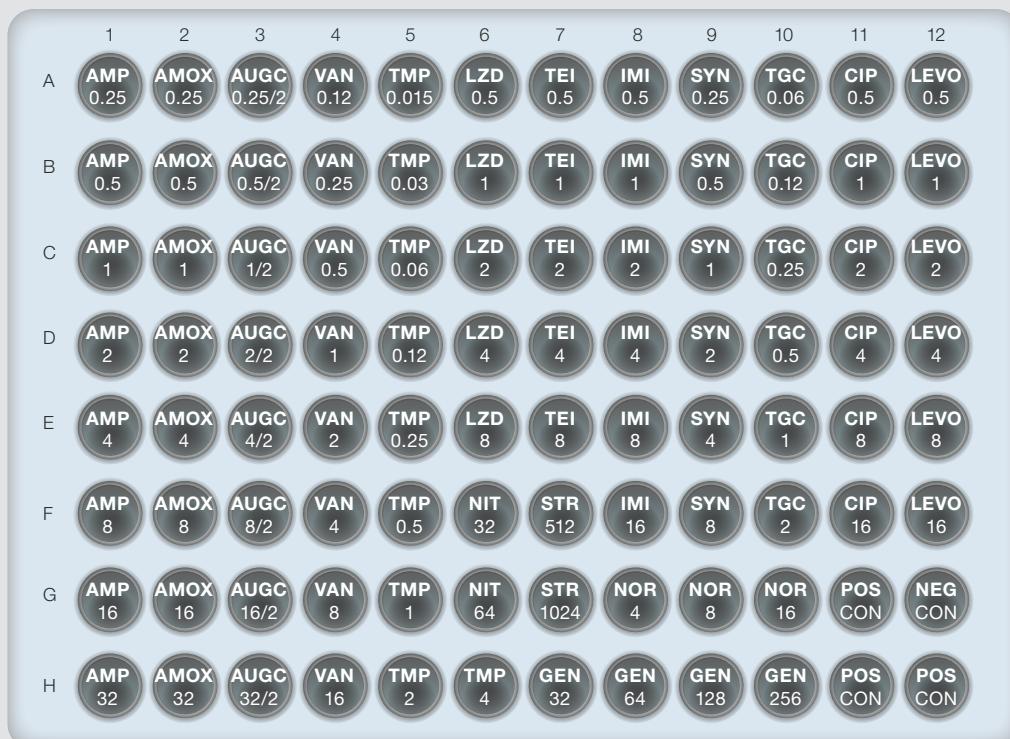
Intended use	Read method	EUCAST recommended routine QC strains	
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Antimicrobial susceptibility plate for testing <i>Enterococcus</i> species isolates	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>*</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
		R4601971	<i>Escherichia coli</i> ATCC® 35218™
Additional QC strains used for product release		R4601996	<i>Enterococcus faecalis</i> ATCC® 51299™
		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL\*\*, or 30 µL\*\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AMOX	Amoxicillin
AUGC	Amoxicillin/Clavulanic acid constant 2
AMP	Ampicillin
CIP	Ciprofloxacin
GEN	Gentamicin
IMI	Imipenem
LEVO	Levofloxacin
LZD	Linezolid
NEG	Negative Control
NIT	Nitrofurantoin
NOR	Norfloxacin
POS	Positive Control
SYN	Quinupristin/dalfopristin
STR	Streptomycin
TEI	Teicoplanin
TGC	Tigecycline
TMP	Trimethoprim
VAN	Vancomycin

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.

The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Streptococcus species STP6F Plate

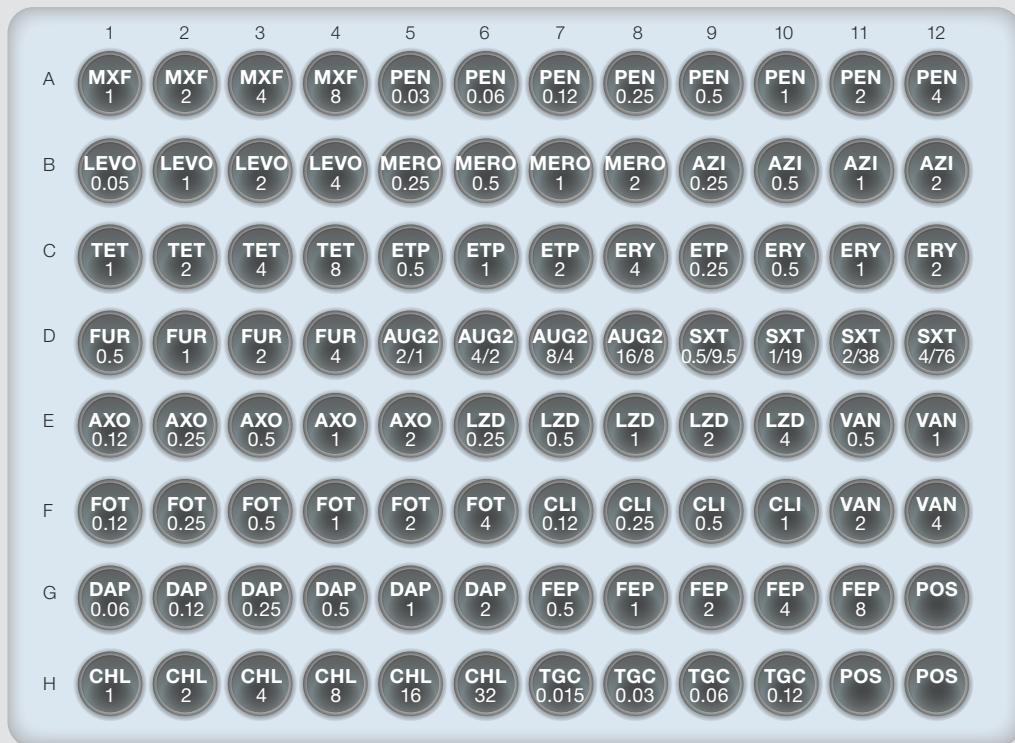
Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation		
Antimicrobial susceptibility plate for testing <i>Streptococcus</i> species isolates	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	R4609015	<i>Streptococcus pneumoniae</i> ATCC <sup>®</sup> 49619
Sensititre Mueller Hinton Broth w/ Lysed Horse Blood – manual read (CP112-10) or Sensititre Mueller Hinton Broth w/ Lysed Horse Blood – autoread (CP11410)	0.5 McFarland Standard (E1041) Sensititre Mueller Hinton Broth 5 mL (T3462-05)		

Put 3-5 colonies into MHB to measure a 0.5 McFarland using the Nephelometer, mix 100 µL of suspension into MHB w/ LHB

Inoculate plate with 100 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 20-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AUG2	Amoxicillin/Clavulanic acid 2:1 ratio
AZI	Azithromycin
FEP	Cefepime
FOT	Cefotaxime
AXO	Ceftriaxone
FUR	Cefuroxime
CHL	Chloramphenicol
CLI	Clindamycin
DAP	Daptomycin
ETP	Ertapenem
ERY	Erythromycin
LEVO	Levofloxacin
LAZD	Linezolid
MERO	Meropenem
MXF	Moxifloxacin
PEN	Penicillin
POS	Positive control
TET	Tetracycline
TGC	Tigecycline
SXT	Trimethoprim/Sulfamethoxazole
VAN	Vancomycin

<sup>#</sup>The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Streptococcus FDANDSF Plate

## with oritavancin, dalbavancin, and tedizolid

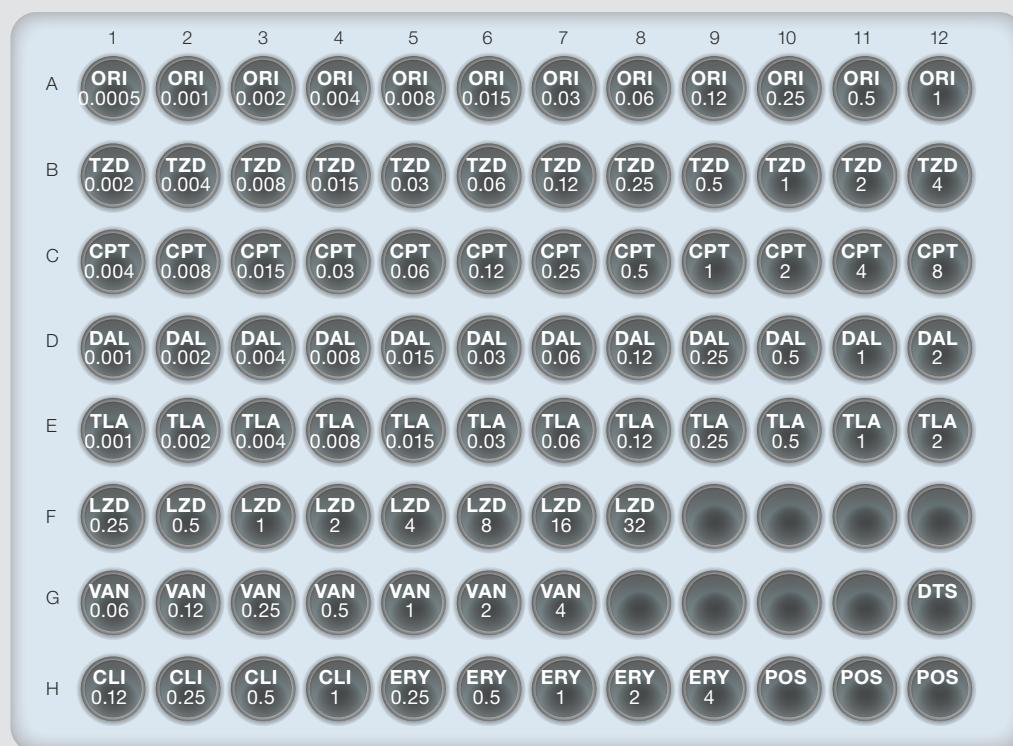
Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing <i>Streptococcus</i> species isolates	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
Additional QC strains used for product release			R4609015 <i>Streptococcus pneumoniae</i> ATCC®49619
Broth type	<b>Inoculum preparation</b>	R4606512	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® BAA-976 <sup>™</sup>
Sensititre Mueller Hinton Broth w/ Lysed Horse Blood – manual read (CP112-10) or Sensititre Mueller Hinton Broth w/ Lysed Horse Blood – autoread (CP11410)			R4606513 <i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® BAA-977 <sup>™</sup>
			R4607010 <i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 25923 <sup>™</sup>
			R4607011 <i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213 <sup>™</sup>

Put 3-5 colonies into MHB to measure a 0.5 McFarland using the Nephelometer, Mix 100 µL of suspension into MHB w/ LHB

Inoculate plate with 100 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 20-24 hours

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



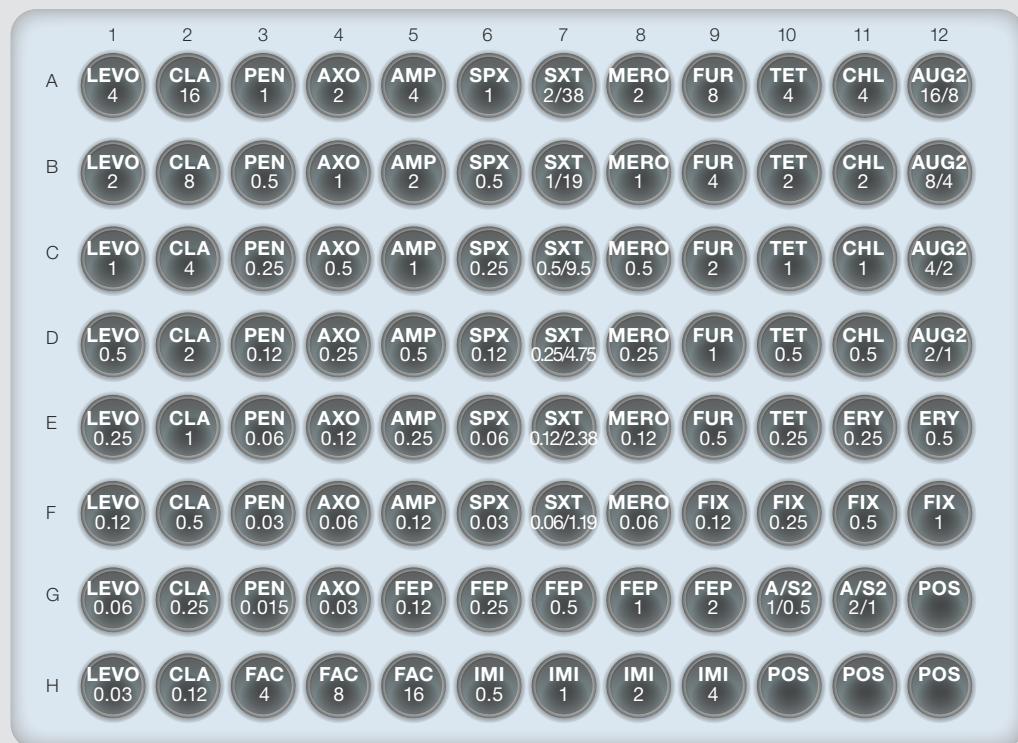
### Antimicrobics

CPT	Ceftaroline
CLI	Clindamycin
DTS	D Test
DAL	Dalbavancin
ERY	Erythromycin
LZD	Linezolid
ORI	Oritavancin
POS	Positive control
TZD	Tedizolid
TLA	Telavancin
VAN	Vancomycin

<sup>#</sup>The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Haemophilus and Streptococcus pneumoniae HPB1 Plate

Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing <i>Streptococcus pneumoniae</i> and <i>Haemophilus influenzae</i> isolates	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
<b>Broth type</b>	<b>Inoculum preparation</b>	R4603830	<i>Haemophilus influenzae</i> ATCC® 49247™
Sensititre HTM (T3470)* or Sensititre Mueller Hinton Broth w/ Lysed Horse Blood – manual read (CP112-10)**	0.5 McFarland Standard (E1041) Sensititre Mueller Hinton Broth 5 mL (T3462-05)	R4603806	<i>Haemophilus influenzae</i> ATCC® 49766™
		R4609015	<i>Streptococcus pneumoniae</i> ATCC® 49619



## Antimicrobics

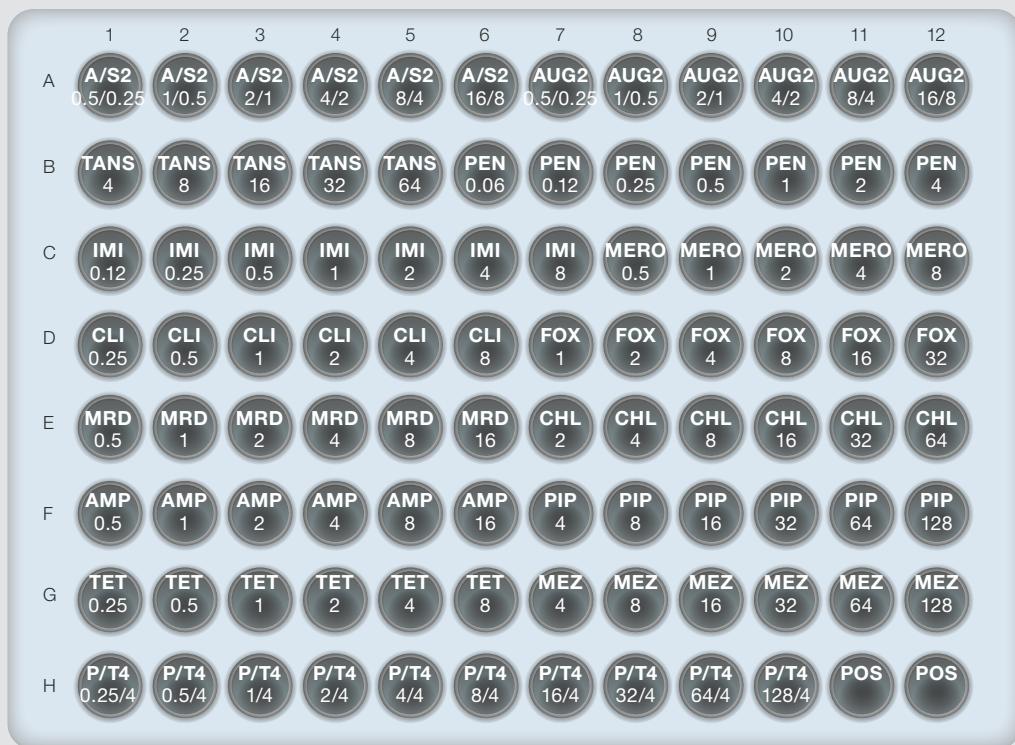
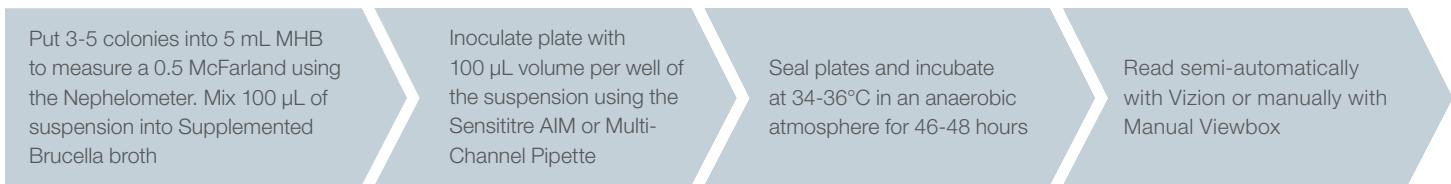
AUG2	Amoxicillin/Clavulanic Acid 2:1 ratio
AMP	Ampicillin
A/S2	Ampicillin/Sulbactam 2:1 ratio
FAC	Cefaclor
FEP	Cefepime
FIX	Cefixime
AXO	Ceftriaxone
FUR	Cefuroxime
CHL	Chloramphenicol
CLA	Clarithromycin
ERY	Erythromycin
IMI	Imipenem
LEVO	Levofloxacin
MERO	Meropenem
PEN	Penicillin
POS	Positive control
SPX	Sparfloxacin
TET	Tetracycline
SXT	Trimethoprim/Sulfamethoxazole

\*For *Haemophilus*. \*\*For *S. pneumoniae/streptococcus*.

# Sensititre Anaerobe ANO2B Plate

## for *B. fragilis* group

Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing anaerobic organisms <i>Bacteroides fragilis</i> group	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	<b>Inoculum preparation</b>		
Sensititre™ Supplemented Brucella Broth for Anaerobes (T3450)	0.5 McFarland Standard (E1041) Sensititre™ Cation Adjusted Mueller-Hinton Broth with TES (CAMHBT) (T3462-05)		
		Additional QC strains used for product release R4601971 <i>Escherichia coli</i> ATCC® 35218™	



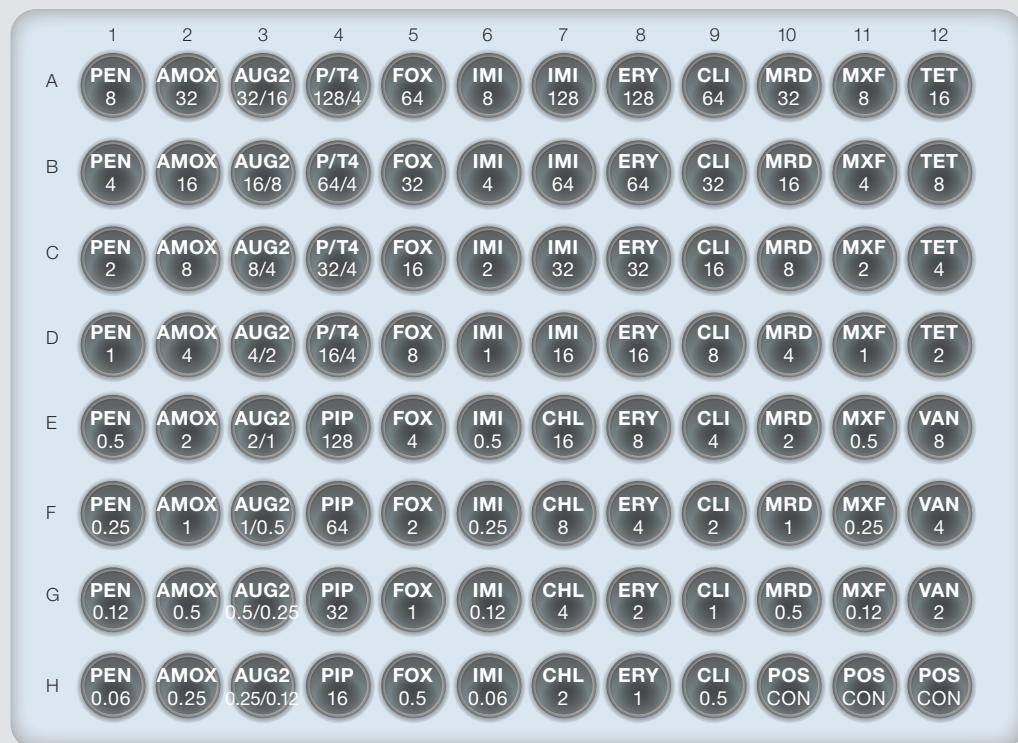
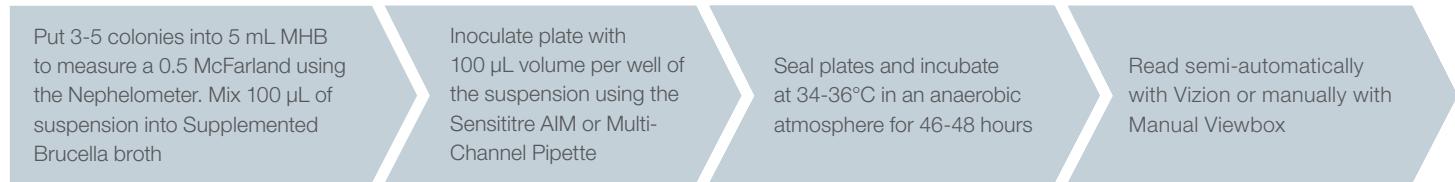
## Antimicrobics

<b>AUG2</b>	Amoxicillin /Clavulanic acid 2:1 ratio
<b>AMP</b>	Ampicillin
<b>A/S2</b>	Ampicillin/Sulbactam 2:1 ratio
<b>TANS</b>	Cefotetan
<b>FOX</b>	Cefoxitin
<b>CHL</b>	Chloramphenicol
<b>CLI</b>	Clindamycin
<b>IMI</b>	Imipenem
<b>MERO</b>	Meropenem
<b>MRD</b>	Metronidazole
<b>MEZ</b>	Mezlocillin
<b>PEN</b>	Penicillin
<b>PIP</b>	Piperacillin
<b>P/T4</b>	Piperacillin /Tazobactam constant 4
<b>POS</b>	Positive Control
<b>TET</b>	Tetracycline

# Sensititre Anaerobe ANAERO3 Plate

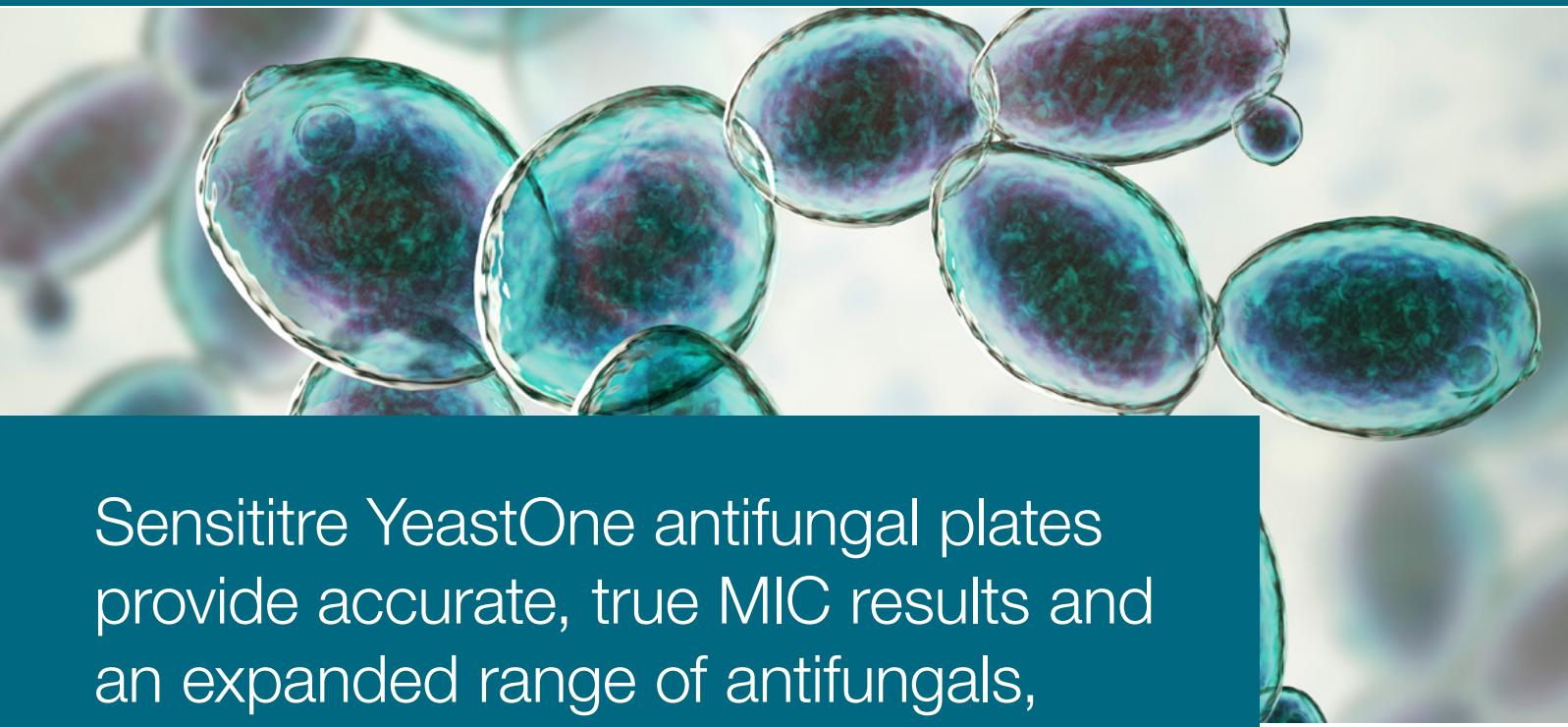
for *B. fragilis* group, with amoxicillin, erythromycin, moxifloxacin and vancomycin

Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation		
Antimicrobial susceptibility plate for testing anaerobic organisms <i>Bacteroides fragilis</i> group	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
Sensititre Supplemented Brucella Broth for Anaerobes (T3450)	0.5 McFarland Standard (E1041) Sensititre™ Cation Adjusted Mueller-Hinton Broth with TES (T3462-05)	R4601250	<i>Bacteroides fragilis</i> ATCC® 25285™
		R4601260	<i>Bacteroides thetaiotaomicron</i> ATCC® 29741™



## Antimicrobics

AMOX	Amoxicillin
AUG2	Amoxicillin/Clavulanic acid 2:1 ratio
FOX	Cefoxitin
CHL	Chloramphenicol
CLI	Clindamycin
ERY	Erythromycin
IMI	Imipenem
MRD	Metronidazole
MXF	Moxifloxacin
PEN	Penicillin
PIP	Piperacillin
P/T4	Piperacillin/Tazobactam constant 4
POS	Positive Control
TET	Tetracycline



## Sensititre YeastOne antifungal plates provide accurate, true MIC results and an expanded range of antifungals, including micafungin.

Eliminate the time required to manage multiple protocols and increase productivity and efficiency by consolidating your antifungal susceptibility testing onto a single format with Thermo Scientific™ Sensititre™ YeastOne™ plates.

Our YeastOne plate formats offer expanded ranges of antifungals, allowing laboratories to report and track echinocandin susceptibility and resistance against *Candida* spp. Additional plates in the YeastOne portfolio include a wide range of antifungals, allowing you to perform your fungal testing on one platform with clear, easy-to-read end point determination.

All YeastOne plates include:

- Colorimetric Thermo Scientific™ alamarBlue™ agent provides reliable, easy and consistent endpoint determination with visual read options
- Room-temperature storage eliminates inventory control concerns
- Individual packaging allows laboratory to test one plate at a time with no waste
- Inclusive on-scale QC ranges provide immediate quality assurance of testing methodology
- 24-hour incubation time enables timely results

# Sensititre YeastOne YO3IVD Plate with micafungin

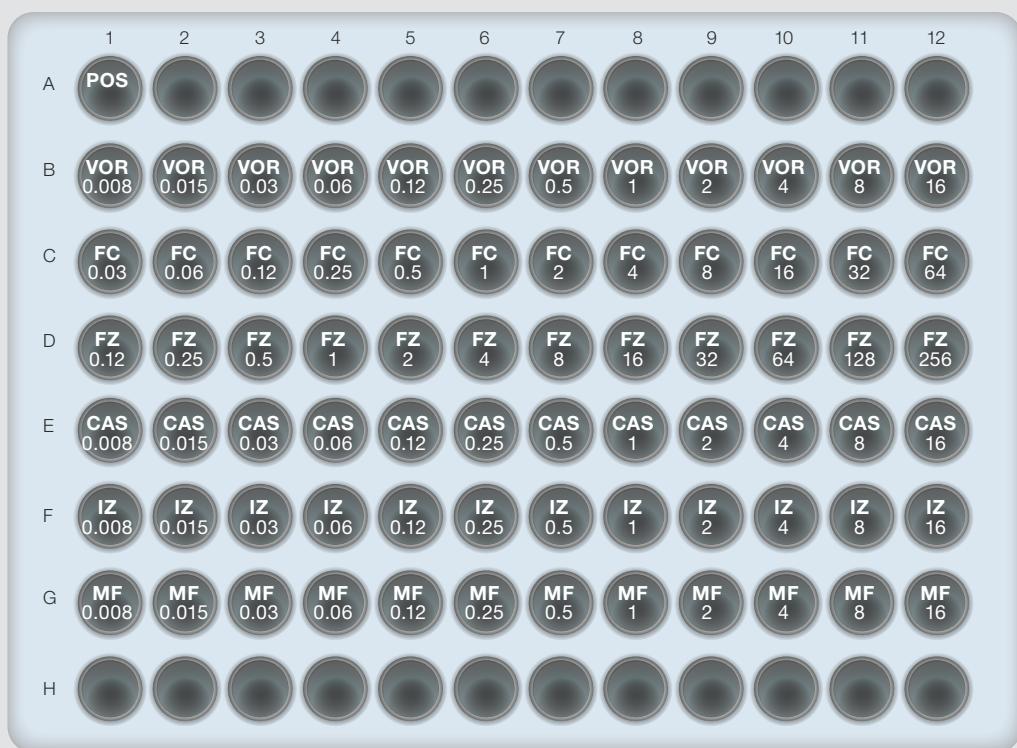
Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing <i>Candida</i> species	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Sensititre YeastOne Broth (Y3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4601520 R4601518	<i>Issatchenkia orientalis</i> ATCC® 6258™ <i>Candida parapsilosis</i> ATCC® 22019™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 20 µL of suspension into Sensititre YeastOne Broth

Inoculate plate with 100 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 35°C in a non-CO<sub>2</sub> incubator for 24-25 hours

Read semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

FC	5-Flucytosine
CAS	Caspofungin
FZ	Fluconazole
IZ	Itraconazole
MF	Micafungin
POS	Positive control
VOR	Voriconazole

# Sensititre YeastOne YO10 Plate

## with anidulafungin and micafungin

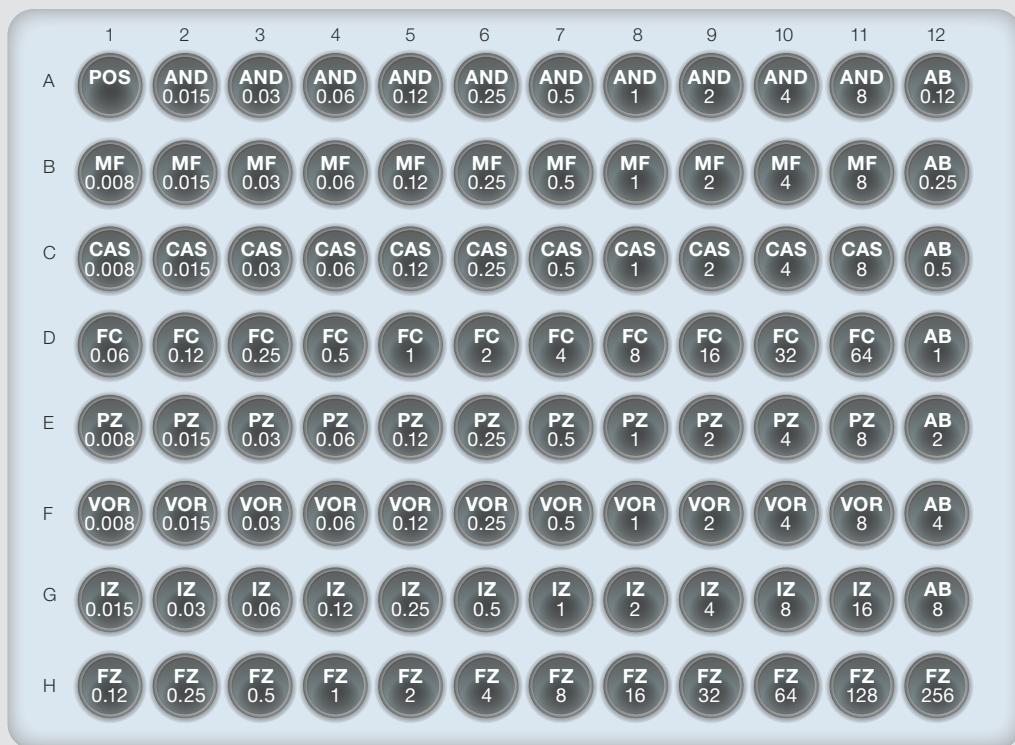
Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing <i>Candida</i> species	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Sensititre YeastOne Broth (Y3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4601520 R4601518	<i>Issatchenkia orientalis</i> ATCC® 6258™ <i>Candida parapsilosis</i> ATCC® 22019™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 20 µL of suspension into Sensititre YeastOne Broth

Inoculate plate with 100 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 35°C in a non-CO<sub>2</sub> incubator for 24-25 hours

Read semi-automatically with Vizion or manually with Manual Viewbox

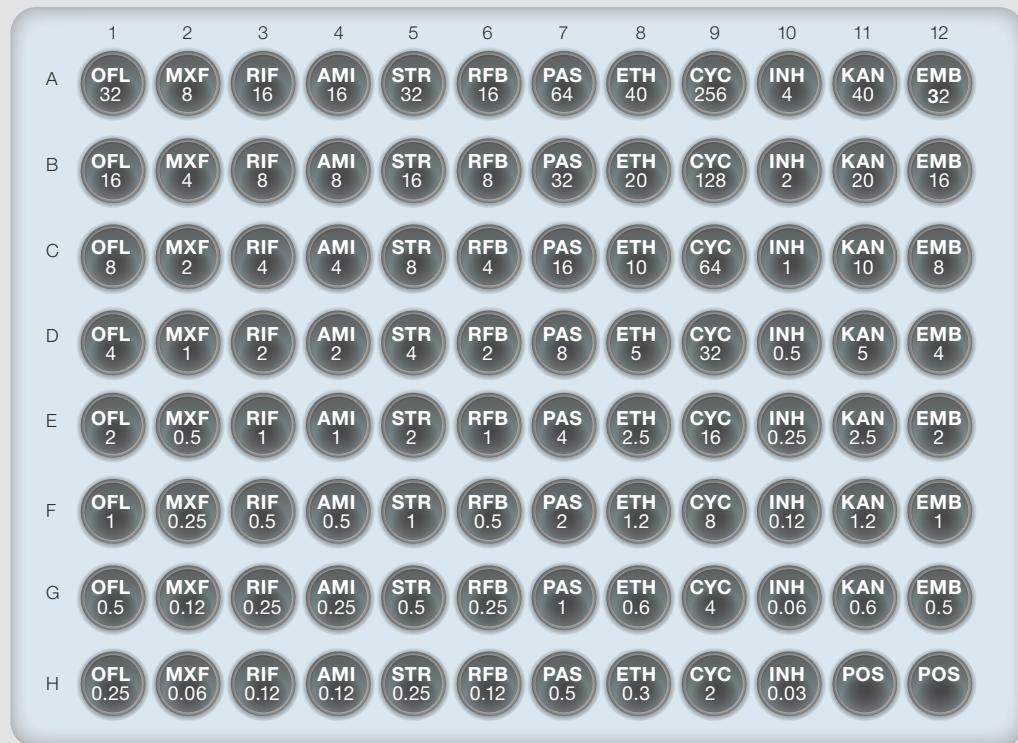


### Antimicrobics

FC	5-Flucytosine
AB	Amphotericin B
AND	Anidulafungin
CAS	Caspofungin
FZ	Fluconazole
IZ	Itraconazole
MF	Micafungin
PZ	Posaconazole
POS	Positive control
VOR	Voriconazole

# Sensititre Mycobacterium tuberculosis MYCOTB Plate

Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation		
Determination of MICs to first and second-line anti-tuberculosis drugs for <i>Mycobacterium tuberculosis</i> isolates	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
Sensititre Middlebrook 7H9 with OADC (T3440)	0.5 McFarland Standard (E1041) Sensititre Saline Tween with Glass Beads (T3490)	N/A	<i>Mycobacterium tuberculosis</i> ATCC® 27294™



AMI	Amikacin
CYC	Cycloserine
EMB	Ethambutol
ETH	Ethionamide
INH	Isoniazid
KAN	Kanamycin
MXF	Moxifloxacin
OFL	Oflloxacin
PAS	Para-aminosalicylic acid
POS	Positive control
RFB	Rifabutin
RIF	Rifampin
STR	Streptomycin

# Sensititre Mycobacterium tuberculosis MYCOTBI Plate

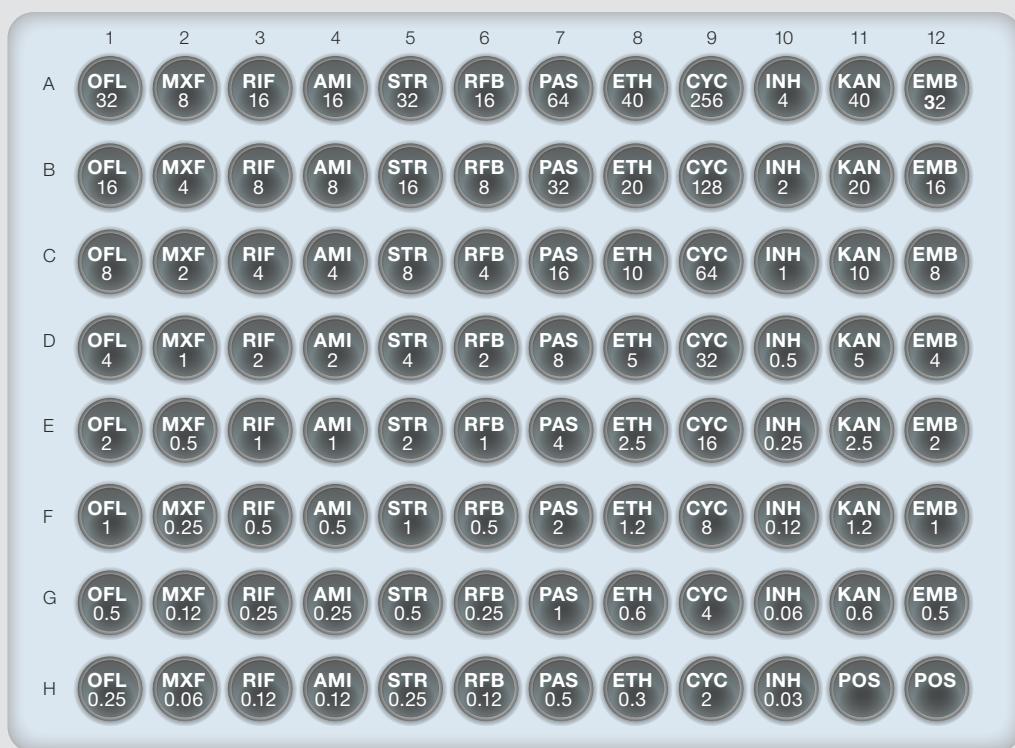
Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation		
Determination of MICs to first and second-line anti-tuberculosis drugs for <i>Mycobacterium tuberculosis</i> isolates	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
Sensititre Middlebrook 7H9 with OADC (T3440)	0.5 McFarland Standard (E1041) Sensititre Saline Tween with Glass Beads (T3490)	N/A	<i>Mycobacterium tuberculosis</i> ATCC® 27294™

Put 3-5 colonies into Saline Tween with Glass Beads to reach 0.5 McFarland Standard, mix 100 µL into Sensititre Middlebrook 7H9 with OADC

Inoculate plate with 100 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 35-37°C in a non-CO<sub>2</sub> incubator for 10-21 days

Read semi-automatically with Vizion or manually with Manual Viewbox



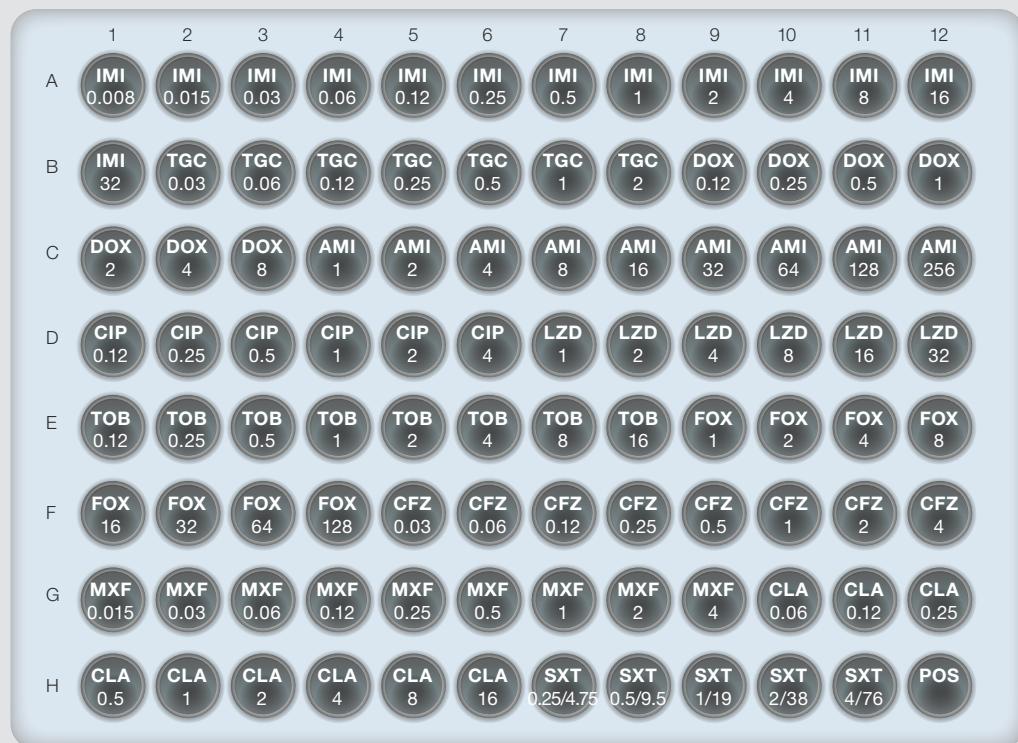
## Antimicrobics

AMI	Amikacin
CYC	Cycloserine
EMB	Ethambutol
ETH	Ethionamide
INH	Isoniazid
KAN	Kanamycin
MXF	Moxifloxacin
OFL	Oflloxacin
PAS	Para-aminosalicylic acid
POS	Positive control
RFB	Rifabutin
RIF	Rifampin
STR	Streptomycin

# Sensititre Rapid Growing Mycobacteria RAPMYCO2 Plate

Intended use	Read method
Antimicrobial susceptibility plate for testing rapidly growing mycobacterium species	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)
Broth type	Inoculum preparation
Sensititre MHB with TES (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)

CLSI recommended routine QC strains	
Culti-Loops product code	Organism description
N/A	<i>Mycobacterium peregrinum</i> ATCC® 700686
R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
Additional QC strains used in product release testing	
R4607050	<i>Escherichia coli</i> ATCC® 25922™
R4601971	<i>Escherichia coli</i> ATCC® 35218™
N/A	<i>Mycobacterium smegmatis</i> ATCC® 19420™



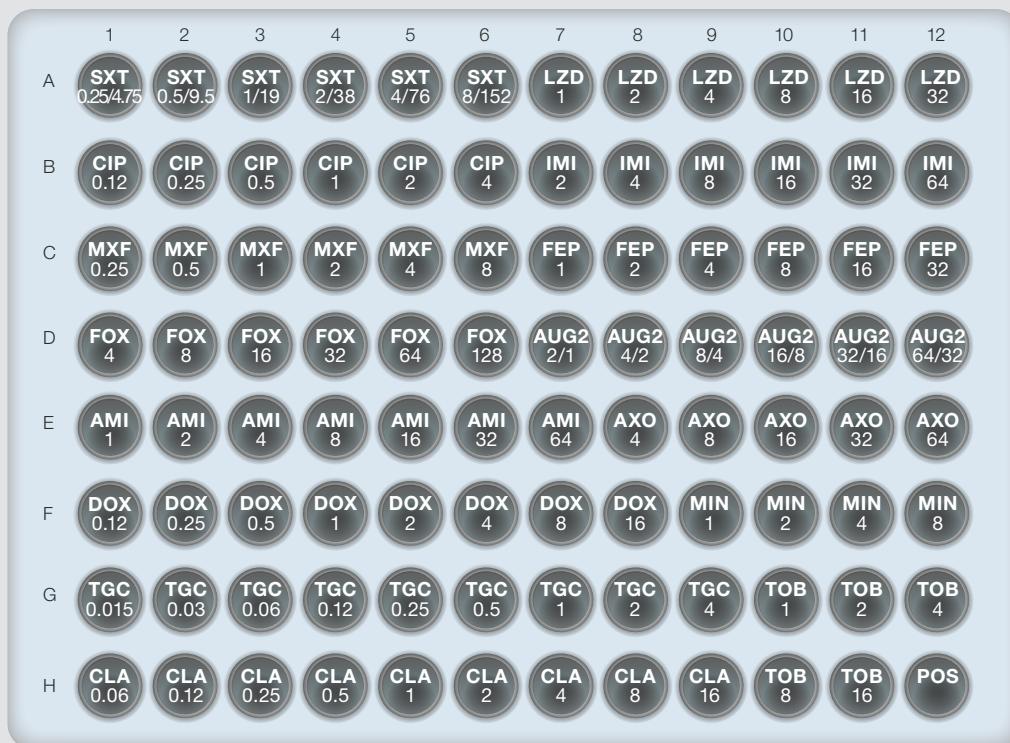
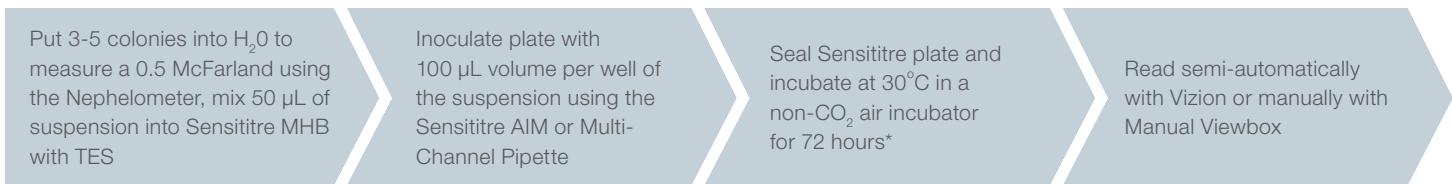
## Antimicrobics

AMI	Amikacin
FOX	Cefoxitin
CIP	Ciprofloxacin
CLA	Clarithromycin
CFZ	Clofazimine
DOX	Doxycycline
IMI	Imipenem
LZD	Linezolid
MXF	Moxifloxacin
POS	Positive Control
TGC	Tigecycline
TOB	Tobramycin
SXT	Trimethoprim/Sulfamethoxazole

\*For *Nocardia* spp. and other aerobic actinomycetes, incubate at 35°C in a non-CO<sub>2</sub> incubator for 2-3 days.

# Sensititre Rapid Growing Myco bacteria RAPMYCOI Plate

Intended use	Read method	CLSI recommended routine QC strains	
Susceptibility testing of rapidly growing mycobacteria, <i>Nocardia</i> spp., and other aerobic actinomycetes	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
<b>Broth type</b>	<b>Inoculum preparation</b>	N/A	<i>Mycobacterium peregrinum</i> ATCC 700686
Sensititre MHB with TES (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		Additional QC strains used in product release testing	
		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4601971	<i>Escherichia coli</i> ATCC® 35218™
		N/A	<i>Mycobacterium smegmatis</i> ATCC 19420



## Antimicrobics

AMI	Amikacin
AUG2	Amoxicillin/Clavulanic acid 2:1 ratio
FEP	Cefepime
FOX	Cefoxitin
AXO	Ceftriaxone
CIP	Ciprofloxacin
CLA	Clarithromycin
DOX	Doxycycline
IMI	Imipenem
LZD	Linezolid
MIN	Minocycline
MXF	Moxifloxacin
POS	Positive control
TGC	Tigecycline
TOB	Tobramycin
SXT	Trimethoprim/Sulfamethoxazole

\*For *Nocardia* spp. and other aerobic actinomycetes, incubate at 35°C in a non-CO<sub>2</sub> incubator for 2-3 days.

# Sensititre Slow Growing Mycobacteria SLOMYCO2 Plate

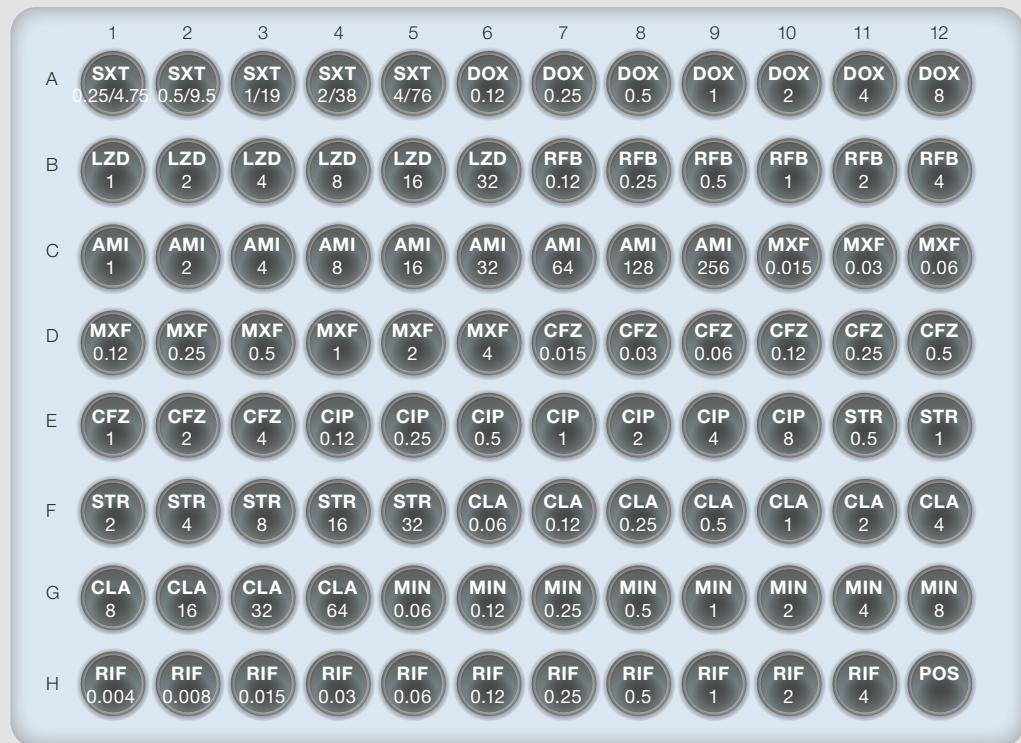
Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation		
Antimicrobial susceptibility plate for testing slow growing mycobacterium species	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
Sensititre MHB with TES (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		N/A	<i>Mycobacterium smegmatis</i> ATCC 19420
		N/A	<i>Mycobacterium peregrinum</i> ATCC 700686
		N/A	<i>Mycobacterium avium</i> ATCC 700898

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 50 µL of suspension into Sensititre MHB with TES

Inoculate plate with 100 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 30°C in a non-CO<sub>2</sub> air incubator for 72 hours\*

Read semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AMI	Amikacin
CIP	Ciprofloxacin
CLA	Clarithromycin
CFZ	Clofazamine
DOX	Doxycycline
LZD	Linezolid
MIN	Minocycline
MXF	Moxifloxacin
POS	Positive Control
RFB	Rifabutin
RIF	Rifampin
STR	Streptomycin
SXT	Trimethoprim/Sulfamethoxazole

\*For *Nocardia* spp. and other aerobic actinomycetes, incubate at 35°C in a non-CO<sub>2</sub> incubator for 2-3 days.

# Sensititre Slow Growing Mycobacteria SLOMYCOI Plate

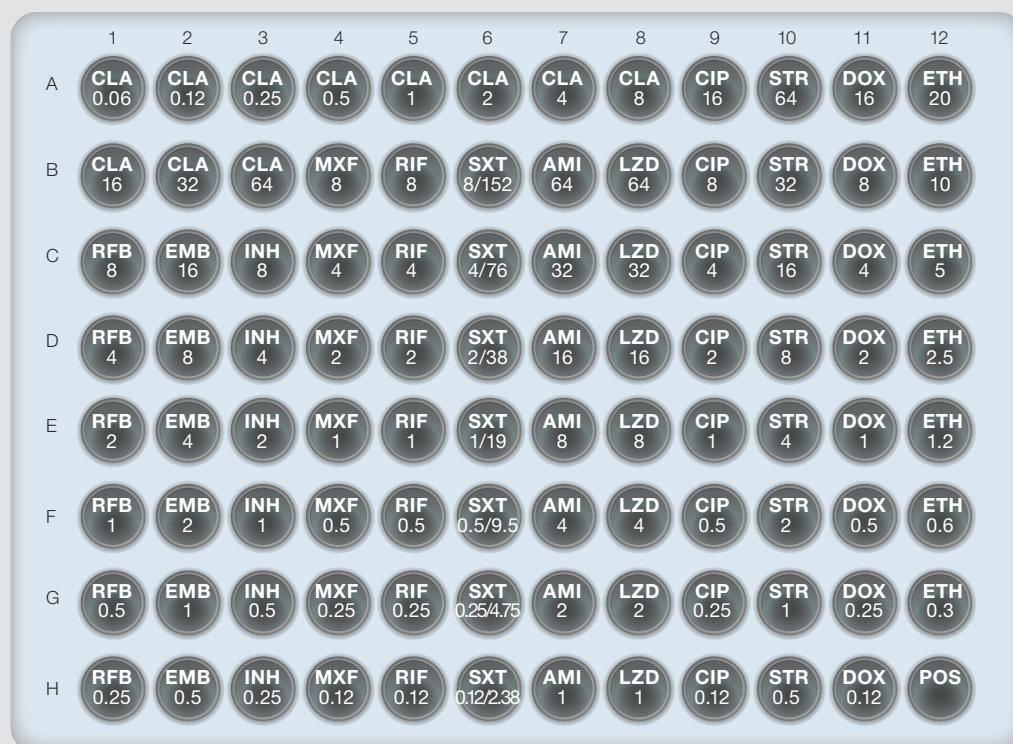
Intended use	Read method	CLSI recommended routine QC strains	
Susceptibility testing of slowly growing non-tuberculosis mycobacteria (NTM), i.e. <i>Mycobacterium avium</i> complex, <i>Mycobacterium kansasii</i> and <i>Mycobacterium marinum</i> . Please refer to CLSI for details of testing <i>M. marinum</i>	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Sensititre MHB with TES (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
Additional QC strains used in product release testing		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		N/A	<i>Mycobacterium smegmatis</i> ATCC 19420
		N/A	<i>Mycobacterium peregrinum</i> ATCC 700686
		N/A	<i>Mycobacterium avium</i> ATCC 700898

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 50 µL of suspension into Sensititre MHB with TES

Inoculate plate with 100 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 30°C in a non-CO<sub>2</sub> air incubator for 72 hours\*

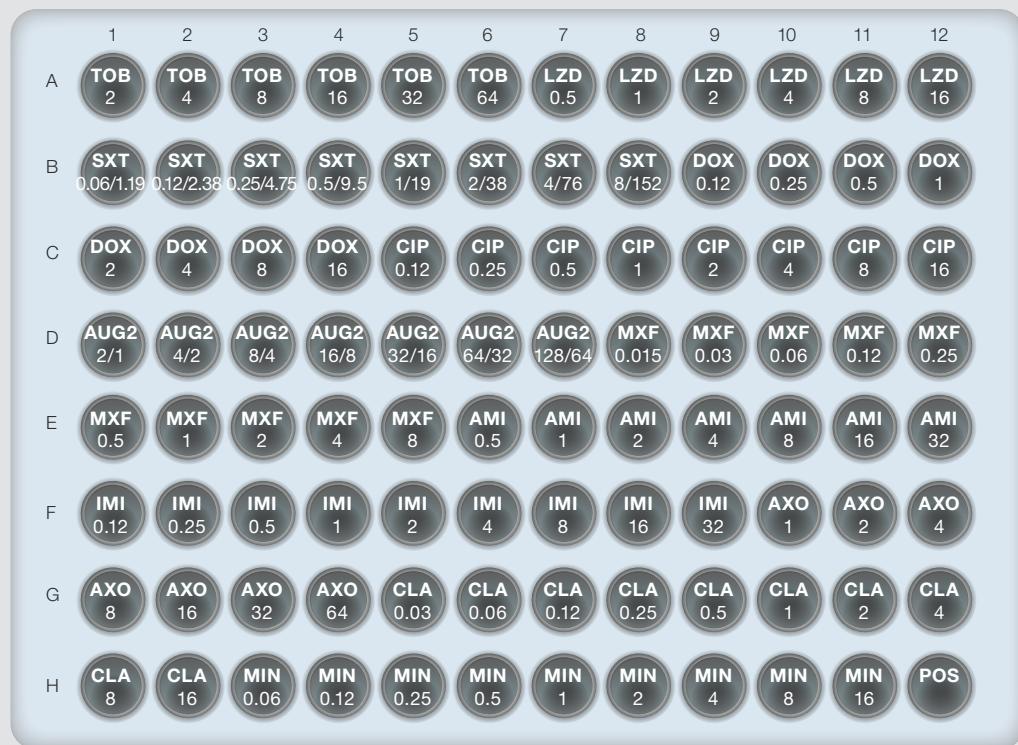
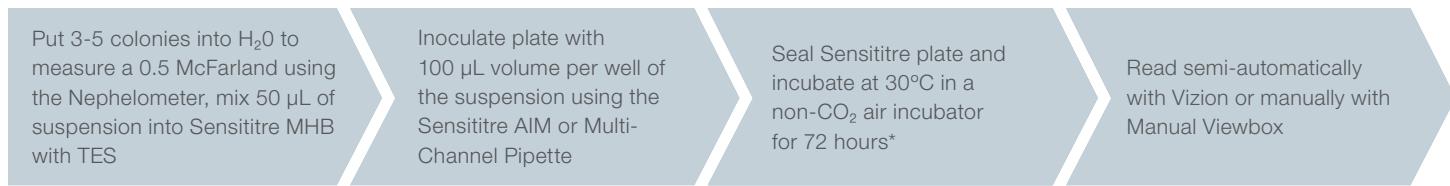
Read semi-automatically with Vizion or manually with Manual Viewbox

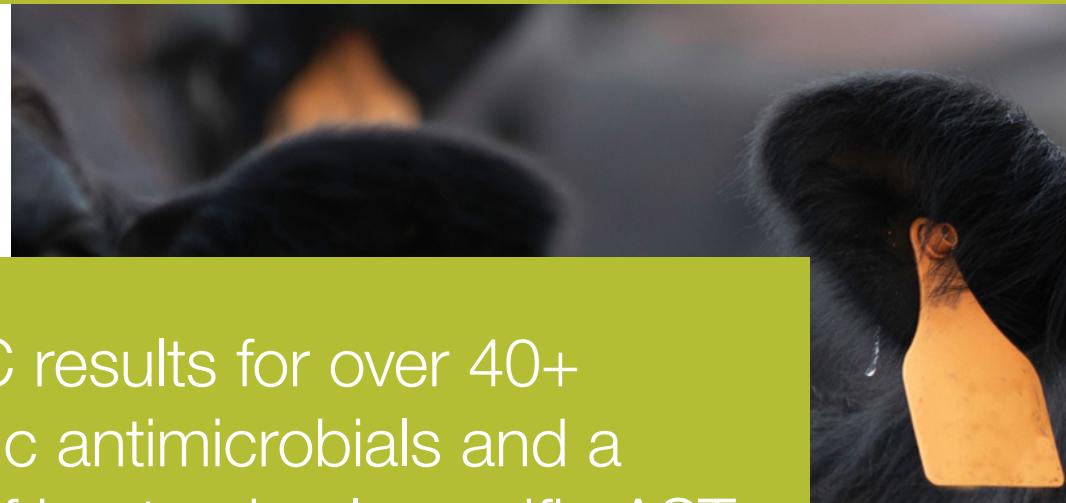


\*For *Nocardia* spp. and other aerobic actinomycetes, incubate at 35°C in a non-CO<sub>2</sub> incubator for 2-3 days.

# Sensititre NOCARDIA Plate

Intended use	Read method	CLSI recommended routine QC strains	
Susceptibility testing of Nocardia species and other aerobic actinomycetes	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Sensititre MHB with TES (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
		R4601971	<i>Escherichia coli</i> ATCC® 35218™





Offering true MIC results for over 40+ veterinary-specific antimicrobials and a broad portfolio of host animal-specific AST plates, the Sensititre System bolsters your ability to improve animal outcomes.



Emergent diseases and evolving multidrug resistance demand earlier intervention with the latest antimicrobials. To effectively treat animal and zoonotic infections, you need a microbiology offering that delivers relevant, more accurate results every time. For standard and custom solutions formulated specifically for veterinary microbiology laboratories, choose the Sensititre ID/AST System.

Host animal-specific AST formats ensure compliance with veterinary CLSI recommendations. New antimicrobials valnemulin and aminosidin now available for custom solutions.\*

\* Not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.



## Vet standard plate formats

		COMPANION		BOVINE/ PORCINE	AVIAN	EQUINE	URINE (all)	BOVINE (mastitis)	TOPICAL (all)	
		GRAM NEGATIVE	GRAM POSITIVE	GRAM NEGATIVE/POSITIVE						
INSTRUMENTS		COMPGN1F	COMPGP1F	COMPAN2F	BOP07F	AVIAN1F	EQUIN2F	CMV1BURF	CMV1AMAF	JOEYE2
FLUORESCENT PLATES	AUTOREAD, SEMI-AUTOMATED AND MANUAL READ (ARIS HiQ, OptiRead, Vizion, manual viewer)	●	●	●	●	●	●	●	●	
NON-FLUORESCENT PLATES	SEMI-AUTOMATED AND MANUAL READ (Vizion, Manual viewer, Manual read)									●

Jump to page ►

50

51

52

53

54

55

56

57

58

# Sensititre Companion Animal Gram Negative COMPGN1F Plate with pradofloxacin

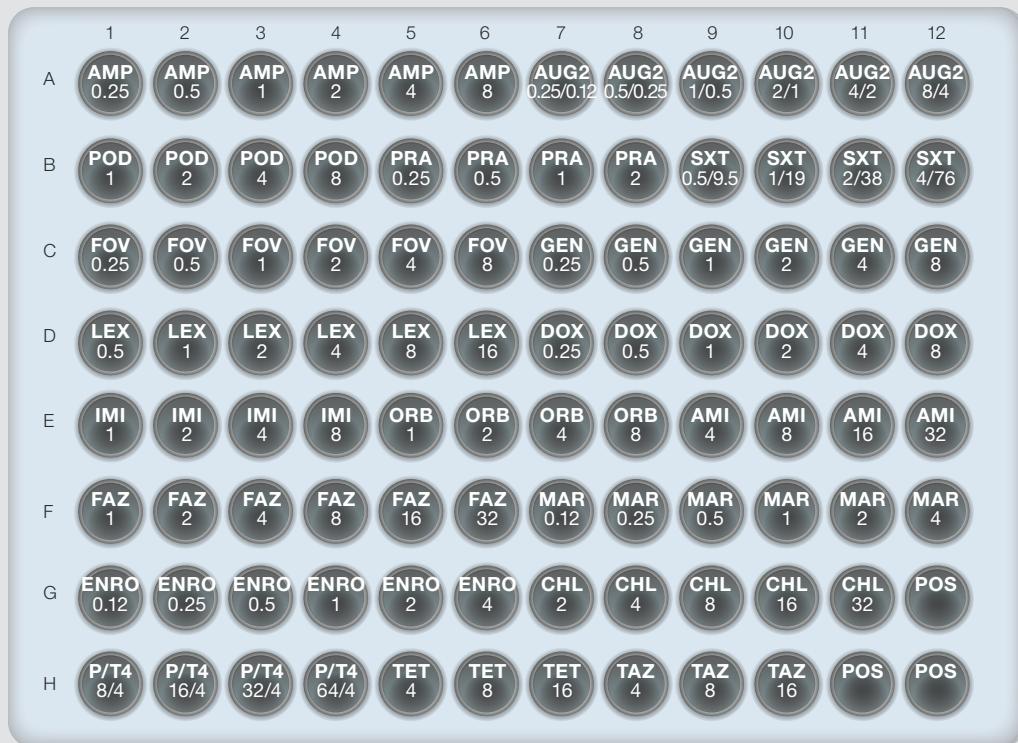
Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing non-fastidious Gram negative isolates of veterinary origin	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000)* Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
R4607050	<i>Escherichia coli</i> ATCC® 25922™		
R4601971	<i>Escherichia coli</i> ATCC® 35218™		
R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™		
QC strains used for product release			
R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™		
R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™		

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\* or 10 µL of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ\* for 18-24 hours

Read automatically with ARIS HiQ\* or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

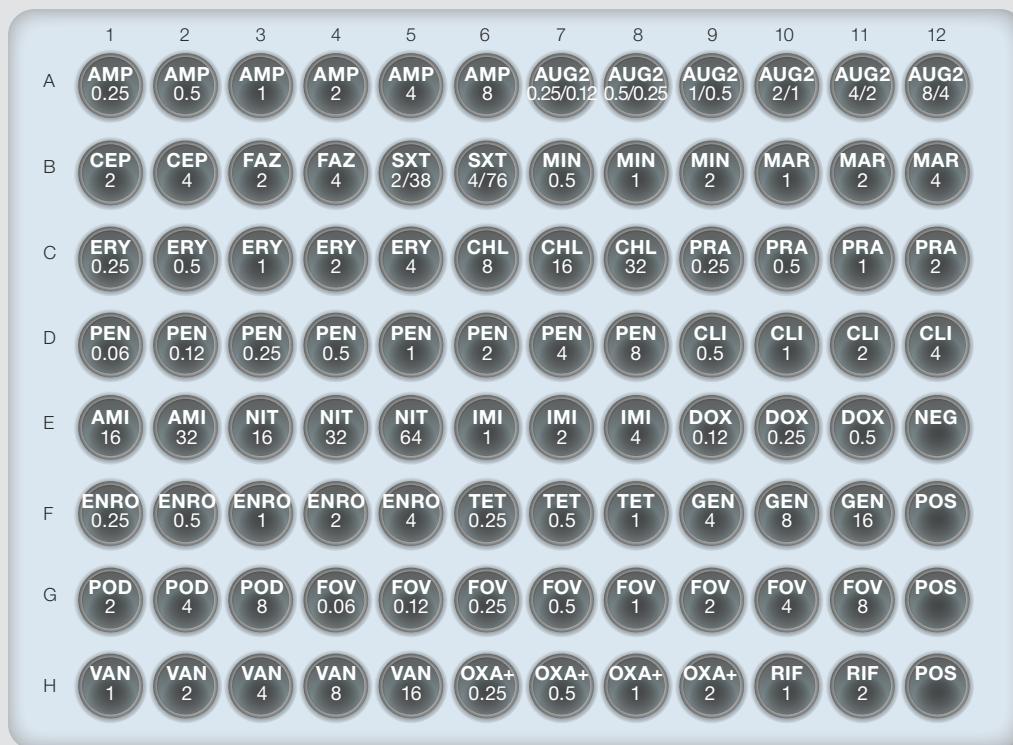
AMI	Amikacin
AUG2	Amoxicillin/Clavulanic acid 2:1 ratio
AMP	Ampicillin
FAZ	Cefazolin
POD	Cefopodoxime
FOV	Cefovecin
TAZ	Ceftazidime
LEX	Cephalexin
CHL	Chloramphenicol
DOX	Doxycycline
ENRO	Enrofloxacin
GEN	Gentamicin
IMI	Imipenem
MAR	Marbofloxacin
ORB	Orbifloxacin
P/T4	Piperacillin/Tazobactam contant 4
POS	Positive control
PRA	Pradofloxacin
TET	Tetracycline
SXT	Trimethoprim/Sulfamethoxazole

\*For Proteus spp. \*The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Companion Animal Gram Positive COMPGP1F Plate with pradofloxacin

Intended use	Read method
Antimicrobial susceptibility plate for testing non-fastidious Gram positive isolates of veterinary origin	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)
Broth type	Inoculum preparation
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)

CLSI recommended routine QC strains	
Culti-Loops product code	Organism description
R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
Additional QC strains used for product release	
R4607050	<i>Escherichia coli</i> ATCC® 25922™
R4601971	<i>Escherichia coli</i> ATCC® 35218™
R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™



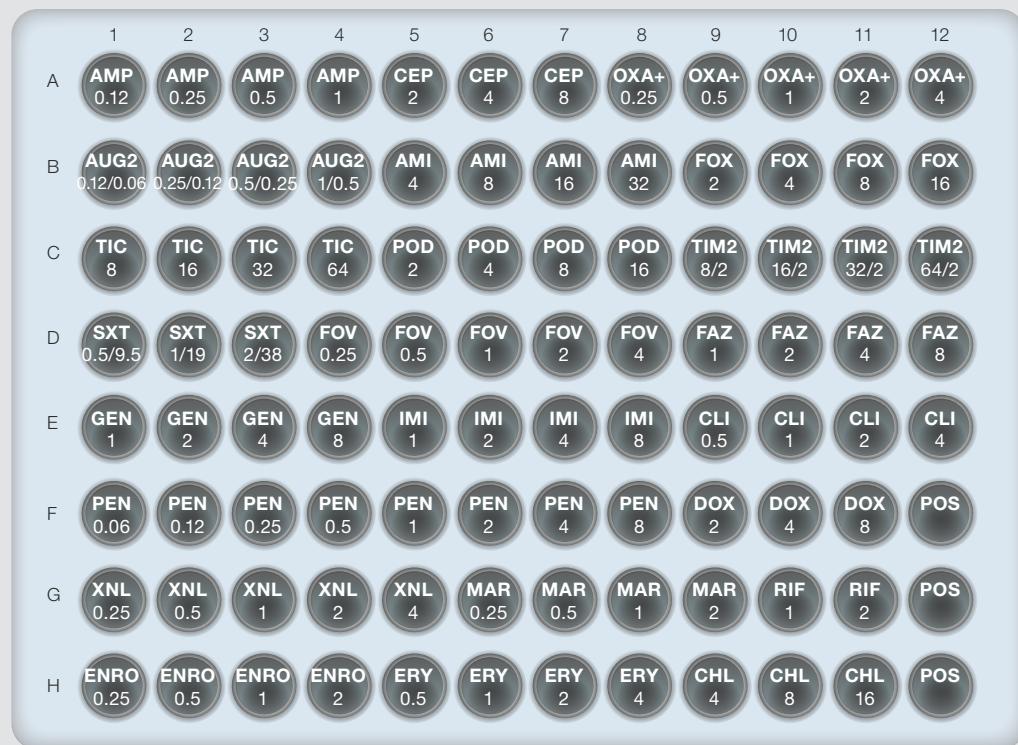
## Antimicrobics

AMI	Amikacin
AUG2	Amoxicillin/Clavulanic acid 2:1 ratio
AMP	Ampicillin
FAZ	Cefazolin
POD	Cefopodoxime
FOV	Cefovecin
CEP	Cephalothin
CHL	Chloramphenicol
CLI	Clindamycin
DOX	Doxycycline
ENRO	Enrofloxacin
ERY	Erythromycin
GEN	Gentamicin
IMI	Imipenem
MAR	Marbofloxacin
MIN	Minocycline
NEG	Negative control
NIT	Nitrofurantoin
OXA+	Oxacillin + 2% NaCl
PEN	Penicillin
POS	Positive control
PRA	Pradofloxacin
RIF	Rifampin
TET	Tetracycline
SXT	Trimethoprim/Sulfamethoxazole
VAN	Vancomycin

\*Ensure detection of hetero-resistant isolates among *Staphylococcus* and *Enterococcus* spp. <sup>#</sup>The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Companion Animal COMPAN2F Plate

Intended use	Read method	CLSI recommended routine QC strains	
Companion diagnostic testing of veterinary animal specific pathogens	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
<b>Broth type</b>	<b>Inoculum preparation</b>	R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
Organism ID specific (see IFU)	0.5 McFarland Standard (E1041)	R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™



## Antimicrobics

AMP	Ampicillin
AUG2	Amoxicillin/Clavulanic acid 2:1 ratio
AMP	Ampicillin
FAZ	Cefazolin
FOV	Cefovecin
FOX	Cefoxitin
POD	Cefpodoxime
XNL	Ceftiofur
CEP	Cephalothin
CHL	Chloramphenicol
CLI	Clindamycin
DOX	Doxycycline
ENRO	Enrofloxacin
ERY	Erythromycin
GEN	Gentamicin
IMI	Imipenem
MAR	Marbofloxacin
OXA+	Oxacillin+2%NaCl
PEN	Penicillin
POS	Positive Control
RIF	Rifampin
TIC	Ticarcillin
TIM2	Ticarcillin/Clavulanic acid constant 2
SXT	Trimethoprim/Sulfamethoxazole

\*Ensure detection of hetero-resistant isolates among *Staphylococcus* and *Enterococcus* spp. <sup>#</sup>The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Bovine BOPO7F Plate

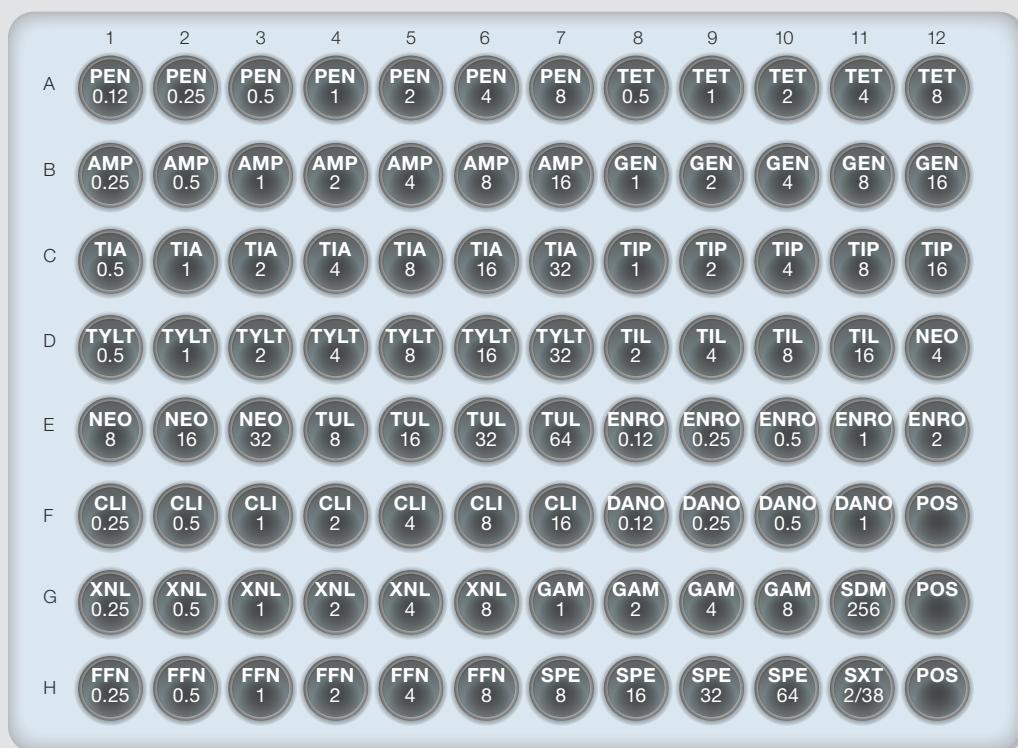
Intended use	Read method	CLSI recommended routine QC strains	
Antimicrobial susceptibility plate for testing non-fastidious Gram positive and Gram negative isolates of veterinary origin. (For <i>Mannheimia hemolytica</i> , <i>Pasteurella multocida</i> , <i>Bordetella bronchiseptica</i> , <i>Streptococcus pneumoniae</i> , <i>Histophilus somni</i> , and <i>Actinobacillus pleuropneumoniae</i> isolates, contact your local Thermo Fisher Microbiology representative for protocol specifications)	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607030 R4607050 R4601971 R4607060 R4607011	<i>Enterococcus faecalis</i> ATCC® 29212™ <i>Escherichia coli</i> ATCC® 25922™ <i>Escherichia coli</i> ATCC® 35218™ <i>Pseudomonas aeruginosa</i> ATCC® 27853™ <i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
Additional QC strains used for product release		R4609015 N/A N/A	<i>Streptococcus pneumoniae</i> ATCC® 49619 <i>Histophilus somni</i> ATCC 700025 <i>Actinobacillus pleuropneumoniae</i> ATCC 27090

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL, or 30 µL\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ# for 18-24 hours\*\*\*

Automatically read with ARIS HiQ# or OptiRead or manually read with Sensititre Vizion or Sensititre Manual Viewbox



## Antimicrobics

AMP	Ampicillin
XNL	Ceftiofur
CLI	Clindamycin
DANO	Danofloxacin
ENRO	Enrofloxacin
FFN	Florfenicol
GAM	Gamithromycin
GEN	Gentamicin
NEO	Neomycin
PEN	Penicillin
POS	Positive control
SPE	Spectinomycin
SDM	Sulphadimethoxine
TET	Tetracycline
TIA	Tiamulin
TIP	Tildipirosin
TIL	Tilmicosin
SXT	Trimethoprim/Sulfamethoxazole
TUL	Tulathromycin
TYLT	Tylosin tartrate

\*Ensure detection of hetero-resistant isolates among *Staphylococcus* and *Enterococcus* spp. \*\*Incubate for 24 hours to ensure detection of oxacillin-resistant *Staphylococcus* and vancomycin-resistant *Enterococcus* spp.

The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Vet Avian AVIAN1F Plate

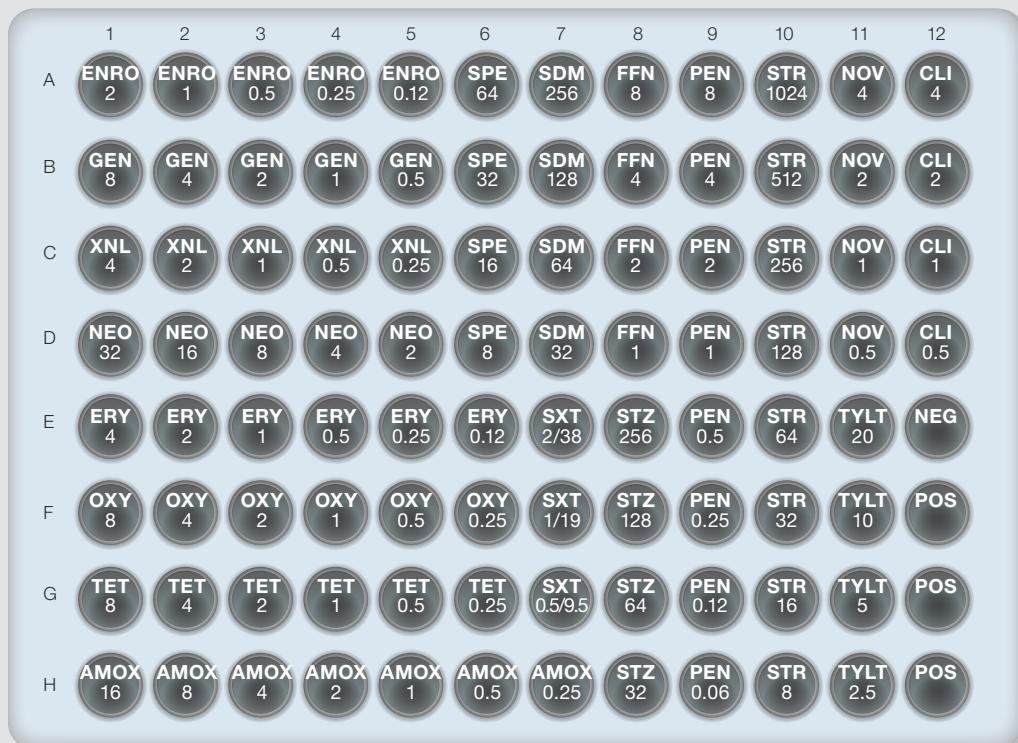
Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation		
Antimicrobial susceptibility plate for testing non-fastidious Gram positive and Gram negative isolates of veterinary origin	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1µL\*, 10 µL, or 30 µL\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ# for 18-24 hours\*\*\*

Read automatically with ARIS HiQ# or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AMOX	Amoxicillin
XNL	Ceftiofur
CLI	Clindamycin
ENRO	Enrofloxacin
ERY	Erythromycin
FFN	Florfenicol
GEN	Gentamicin
NEG	Negative control
NEO	Neomycin
NOV	Novobiocin
OXY	Oxytetracycline
PEN	Penicillin
POS	Positive control
SPE	Spectinomycin
STR	Streptomycin
SDM	Sulphadimethoxine
STZ	Sulphathiazole
TET	Tetracycline
SXT	Trimethoprim/Sulfamethoxazole
TYLT	Tylosin tartrate

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.  
The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Equine EQUIN2F AST Plate

Intended use	Read method
Antimicrobial susceptibility testing of non-fastidious Gram positive and Gram negative isolates of veterinary origin	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)
Broth type	Inoculum preparation
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)

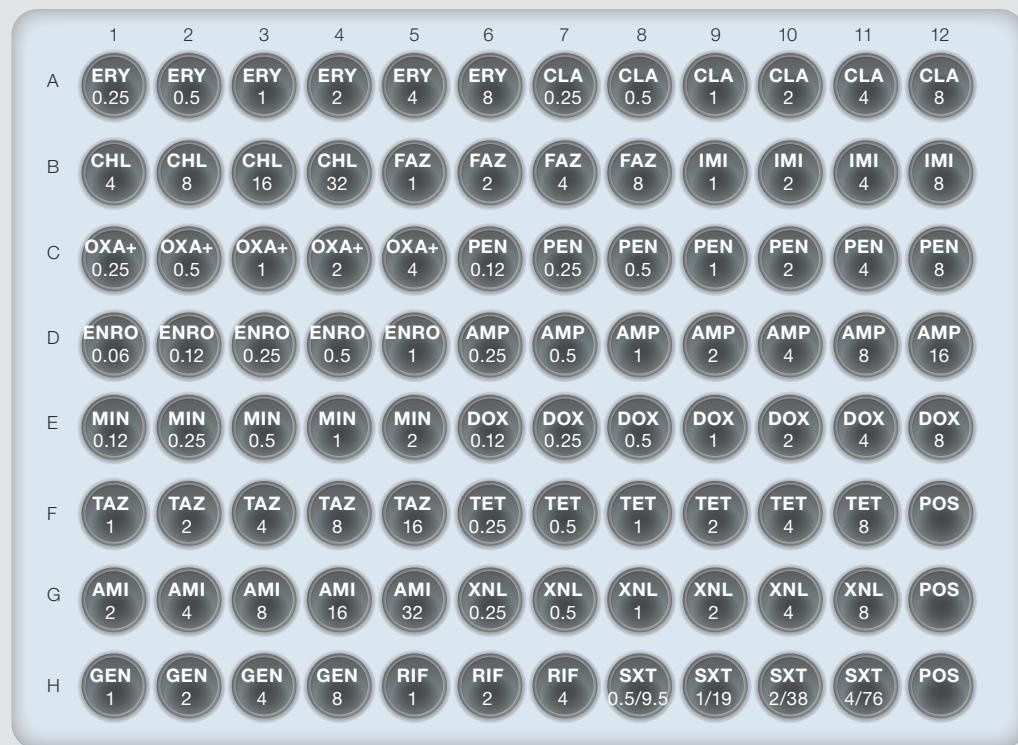
CLSI recommended routine QC strains	
Culti-Loops product code	Organism description
R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
R4607050	<i>Escherichia coli</i> ATCC® 25922™
R4601971	<i>Escherichia coli</i> ATCC® 35218™
R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µL\*, 10 µL, or 30 µL\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ# for 18-24 hours\*\*\*

Read automatically with ARIS HiQ# or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AMI	Amikacin
AMP	Ampicillin
FAZ	Cefazolin
TAZ	Ceftazidime
XNL	Ceftiofur
CHL	Chloramphenicol
CLA	Clarithromycin
DOX	Doxycycline
ENRO	Enrofloxacin
ERY	Erythromycin
GEN	Gentamicin
IMI	Imipenem
MIN	Minocycline
OXA+	Oxacillin+2%NaCl
PEN	Penicillin
POS	Positive Control
RIF	Rifampin
TET	Tetracycline
SXT	Trimethoprim/Sulfamethoxazole

\*For *Proteus* spp. \*\*For Enterobacteriaceae and Non-Enterobacteriaceae. \*\*\*For aid in detection of resistance mechanisms for Enterobacteriaceae and Non-Enterobacteriaceae.

The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Urinary CMV1BURF Plate

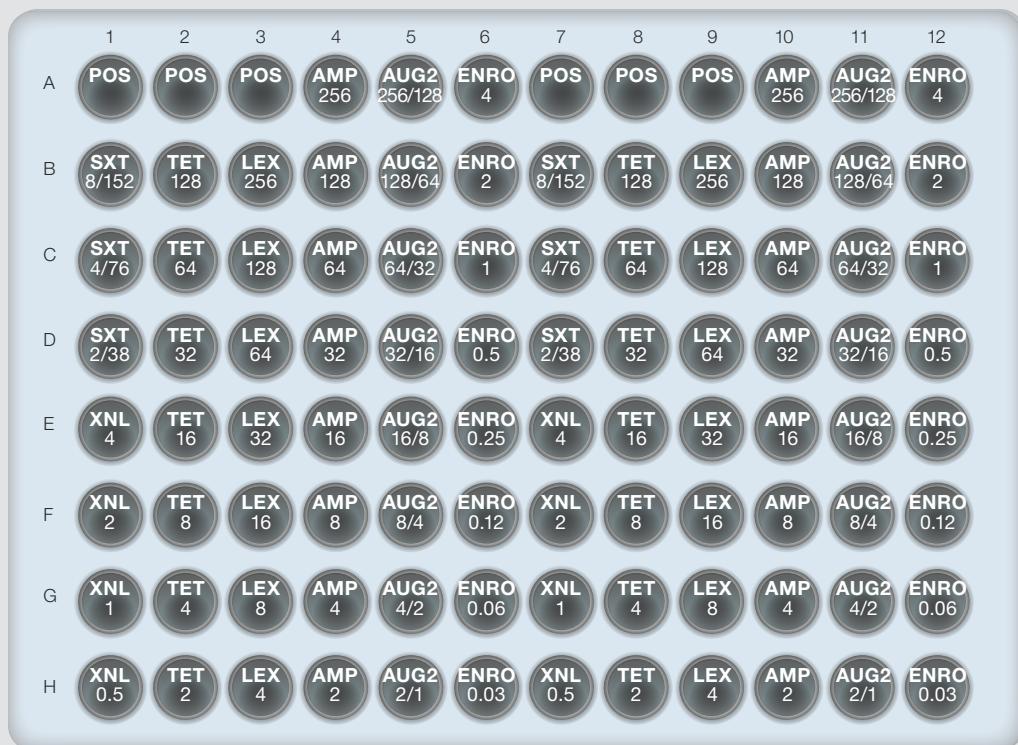
Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation		
Antimicrobial susceptibility plate for testing non-fastidious Gram positive and Gram negative isolates of veterinary origin	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4601971	<i>Escherichia coli</i> ATCC® 35218™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 1 µl\*, 10 µl, or 30 µl\*\* of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18-24 hours\*\*\*

Read automatically with ARIS HiQ<sup>#</sup> or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AUG2	Amoxicillin/Clavulanic acid 2:1 ratio
AMP	Ampicillin
XNL	Ceftiofur
LEX	Cephalexin
ENRO	Enrofloxacin
POS	Positive control
TET	Tetracycline
SXT	Trimethoprim/Sulfamethoxazole

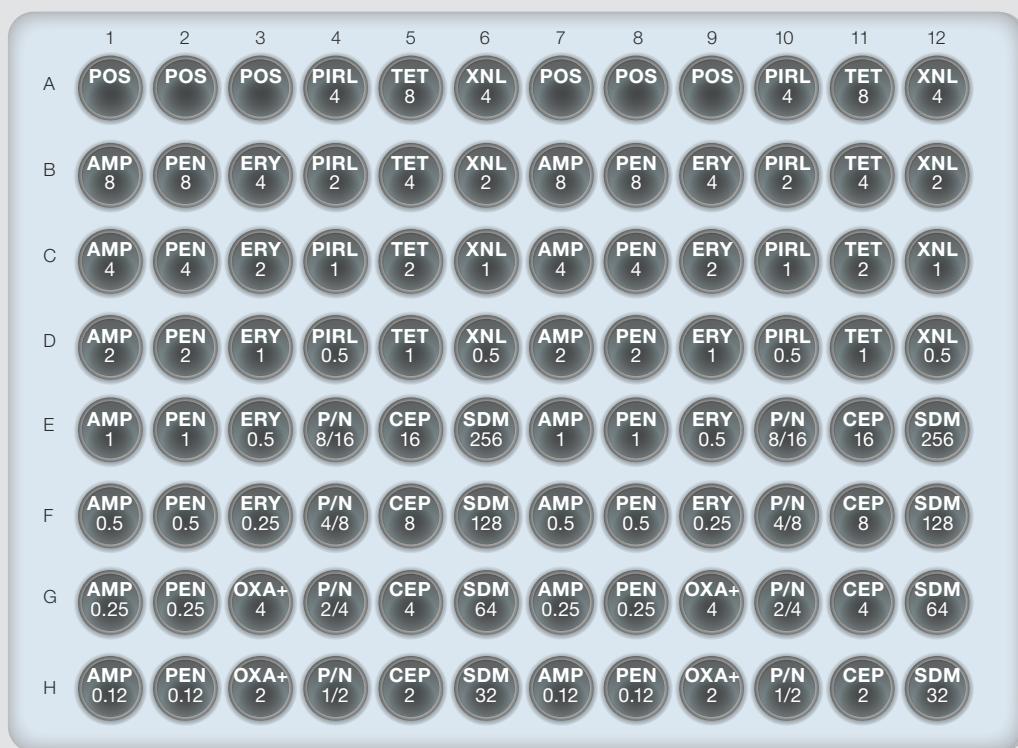
\*Ensure detection of hetero-resistant isolates among *Staphylococcus* and *Enterococcus* spp. \*\*Incubate for 24 hours to ensure detection of oxacillin-resistant *Staphylococcus* and vancomycin-resistant *Enterococcus* spp.

<sup>#</sup>The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Vet Mastitis

## CMV1AMAF Plate

Intended use	Read method	CLSI recommended routine QC strains	
Broth type	Inoculum preparation		
Antimicrobial susceptibility plate for testing non-fastidious Gram positive and Gram negative isolates of veterinary origin. (For <i>Streptococcus pneumoniae</i> isolates, contact your local Thermo Fisher Scientific Microbiology representative for protocol specifications)	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™



### Antimicrobics

AMP	Ampicillin
XNL	Ceftiofur
CEP	Cephalothin
ERY	Erythromycin
OXA+	Oxacillin +2% NaCl
PEN	Penicillin
P/N	Penicillin/Novobiocin
PIRL	Pirlimycin
POS	Positive control
SDM	Sulphadimethoxine
TET	Tetracycline

\*Ensure detection of hetero-resistant isolates among *Staphylococcus* and *Enterococcus* spp. \*\*Incubate for 24 hours to ensure detection of oxacillin-resistant *Staphylococcus* and vancomycin-resistant *Enterococcus* spp.

<sup>#</sup>The Sensititre ARIS HiQ AST System is not yet available in all territories. Please contact your local Thermo Fisher Scientific Microbiology sales representative for more information.

# Sensititre Breakpoint Eye Two-Isolate JOEYE2 Plate

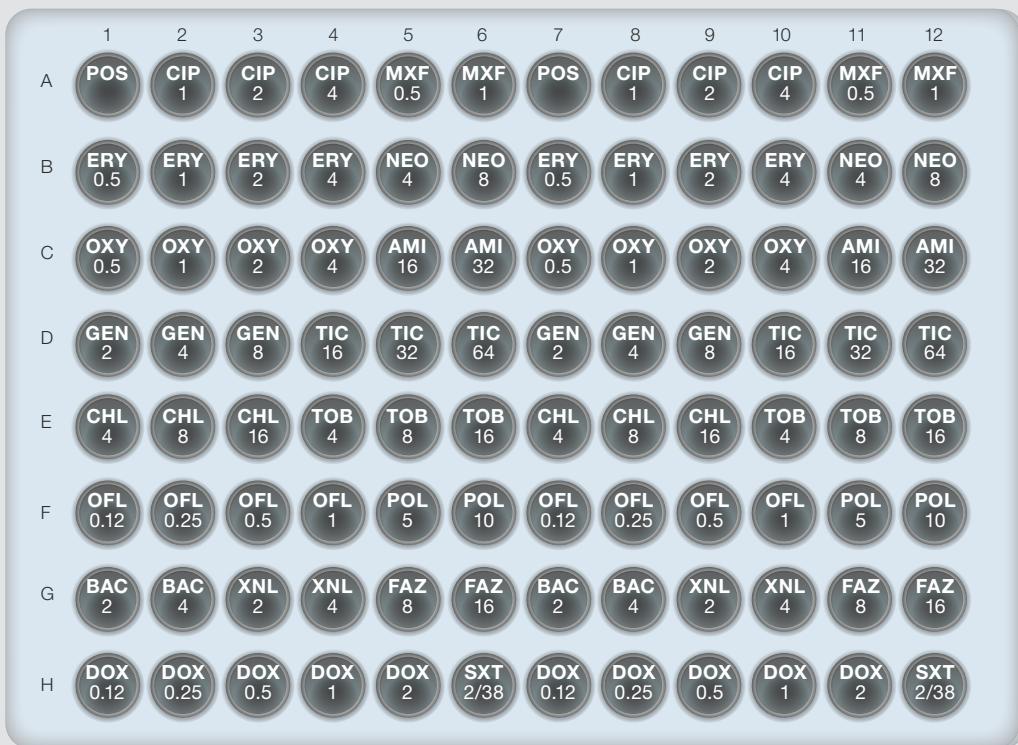
Intended use	Read method	CLSI recommended routine QC strains	
Perform accurate AST with this dual-isolate plate for breakpoint testing of topical compounds	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607030 R4607050 R4607060 R4607011	<i>Enterococcus faecalis</i> ATCC® 29212™ <i>Escherichia coli</i> ATCC® 25922™ <i>Pseudomonas aeruginosa</i> ATCC® 27853™ <i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 10 µL of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator for 18-24 hours

Read automatically with ARIS HiQ® or OptiRead, semi-automatically with Vizion or manually with Manual Viewbox



## Antimicrobics

AMI	Amikacin
BAC	Bacitracin
FAZ	Cefazolin
XNL	Ceftiofur
CHL	Chloramphenicol
CIP	Ciprofloxacin
DOX	Doxycycline
ERY	Erythromycin
GEN	Gentamicin
MXF	Moxifloxacin
NEO	Neomycin
OFL	Ofloxacin
OXY	Oxytetracycline
POL	Polymixin B
POS	Positive control
TIC	Ticarcillin
TOB	Tobramycin
SXT	Trimethoprim/Sulfamethoxazole

# Empowering the people who dedicate their lives to microbiology.

Want easy access to topics relating to antimicrobial susceptibility testing? From topics in the news, to emerging technology, pushing AST stewardship to the next level, our AST newsletter offers you the opportunity to stay at the forefront of everything AST.

thermoscientific

## susceptibility testing, empowered

Bacteriophages, or phages, are the natural enemy of bacteria and offer an interesting alternative to antibiotics

Hear from our first guest editor, Professor Martha Clokie, as we explore the interesting potential alternative of bacteriophages, taking a look back at past uses as well as looking forward to alternative therapies of the future. [Find out more»](#)

Cefiderocol AST - a unique method of MIC testing

With the development of new antibiotics, with unique modes of action, clinical microbiologists may also require new and unique methods for antimicrobial susceptibility testing. Development of methodology that unifies testing conditions, where possible, should add to the ease with which labs can meet these new AST testing options, that should ultimately lead to improved patient care. [Find out more»](#)

Looking into the future of Antimicrobial Susceptibility Testing (AST)

View our webinar with renowned expert Dr. Rafael Canton, as he explores why rapid antimicrobial susceptibility testing is so important at a time when antibiotic resistance is growing into one of the biggest challenges the world faces today. [Find out more»](#)

Up and coming trends in the fight against AMR

The latest on antimicrobials

Hear from your peers

## AST news direct to your inbox

Sign-up to our quarterly AST newsletter

and let us bring the news to you:

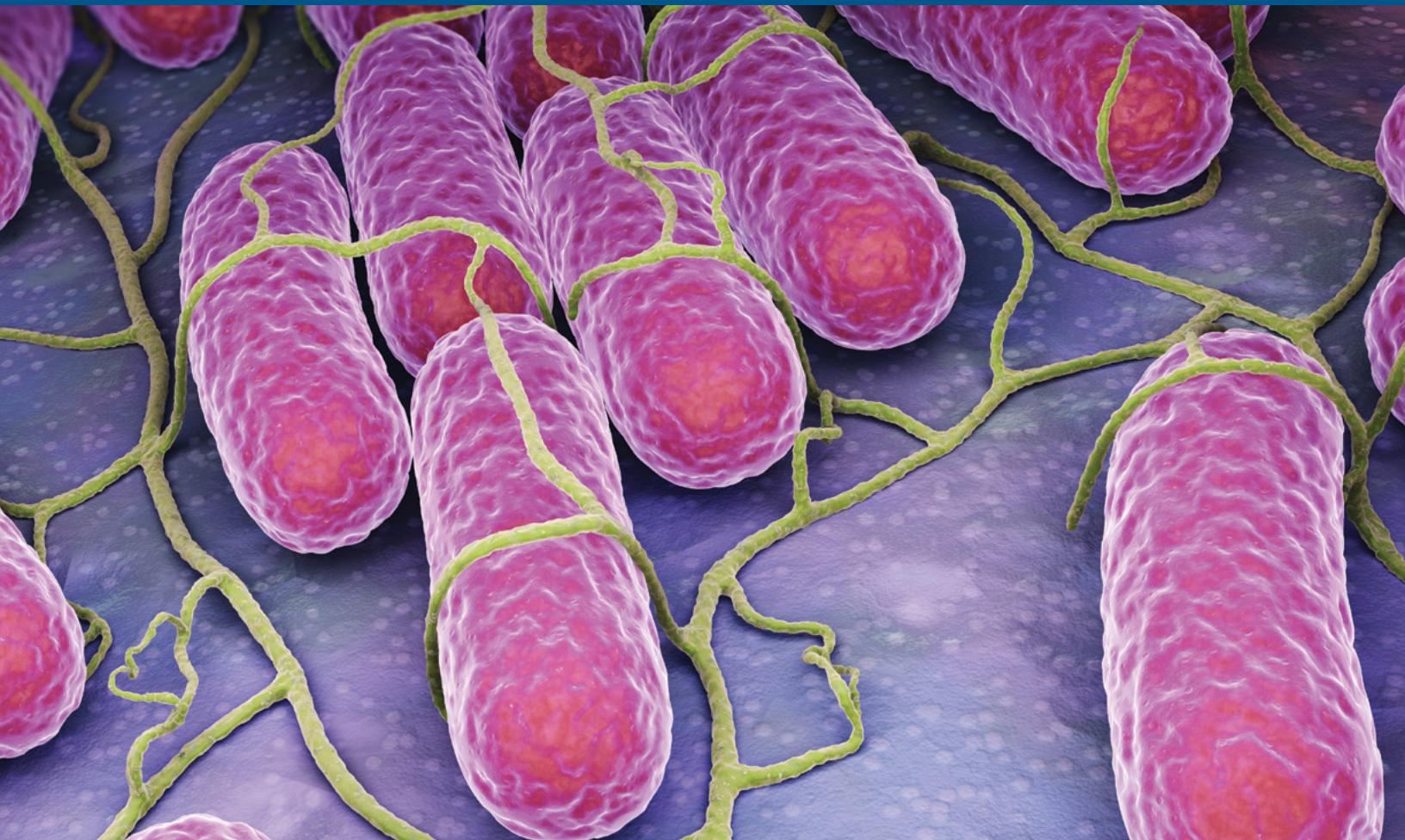
[www.thermofisher.com/ASTempowered](http://www.thermofisher.com/ASTempowered)



Identifying antimicrobial resistance patterns is vital to your ability to better understand key pathogenic drivers and more effectively respond to emerging resistance.

The Sensititre System provides a standardized AMR surveillance tool to support public health and national reference laboratories, enabling you to comply with government surveillance mandates while streamlining workflow. Harmonize your surveillance AST with the method of choice for global AMR programs, including:

- US National Antimicrobial Resistance Monitoring System (NARMS), coordinated via FDA/CVM, USDA and the CDC
- US CDC Antibiotic Resistance Lab Network
- EU Monitoring System of Zoonoses



## Surveillance standard plate formats

		EUROPE			NARMS					
		GRAM NEGATIVE	GRAM POSITIVE	CAMPYLO BACTER	GRAM NEGATIVE	GRAM POSITIVE	CAMPYLOBACTER			
INSTRUMENTS		EUVSEC3	EUVSEC2	EUVENC	EUST2	EUCAAMP3	CWV5AGNF	CWV3AGPF	CWV4AGP	CWVCAMPY
FLUORESCENT PLATES	AUTOREAD, SEMI-AUTOMATED AND MANUAL READ (ARIS HiQ, OptiRead, Vizion, manual viewer)						●	●		
NON-FLUORESCENT PLATES	SEMI-AUTOMATED AND MANUAL READ (Vizion, Manual viewer, Manual read)	●	●	●	●	●		●		●

Jump to page ►

62

63

64

65

66

67

68

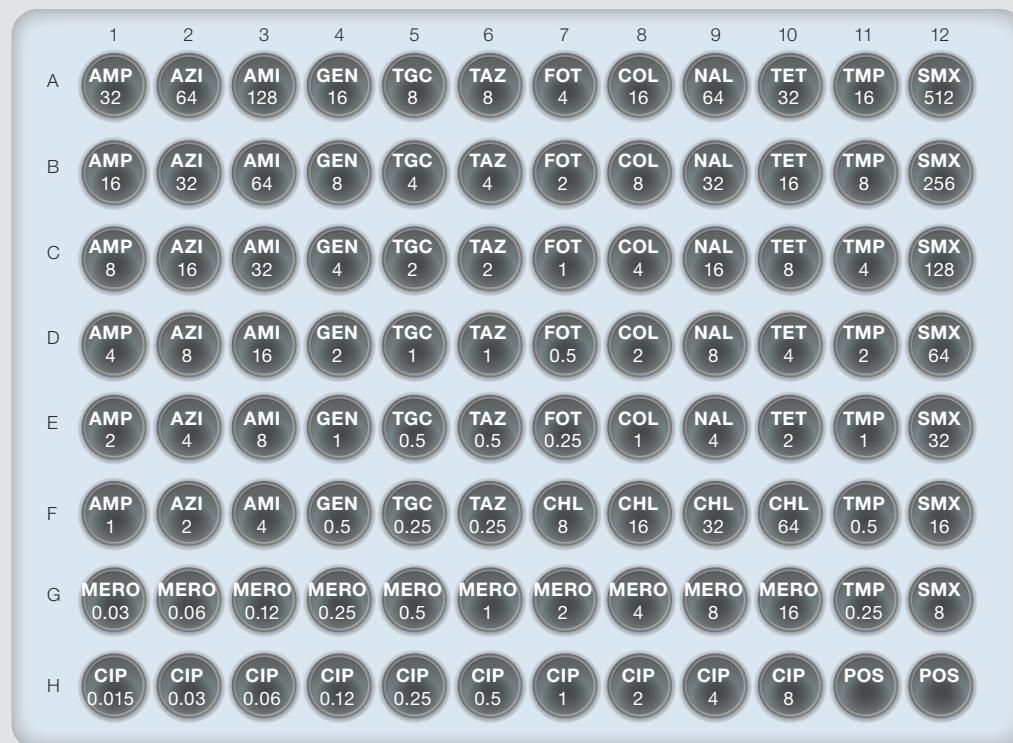
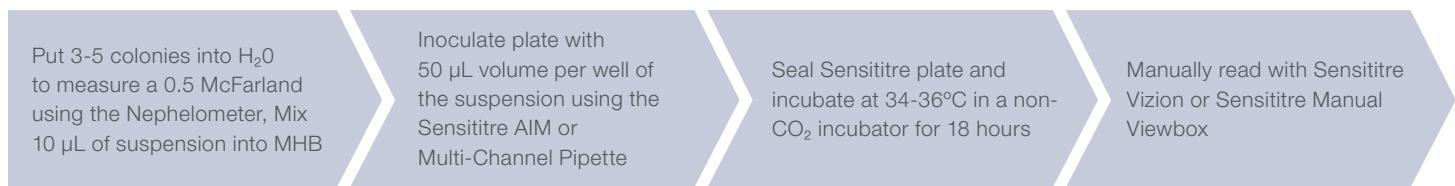
69

70

# Sensititre EU Surveillance

## Salmonella/E. coli EUVSEC3 Plate

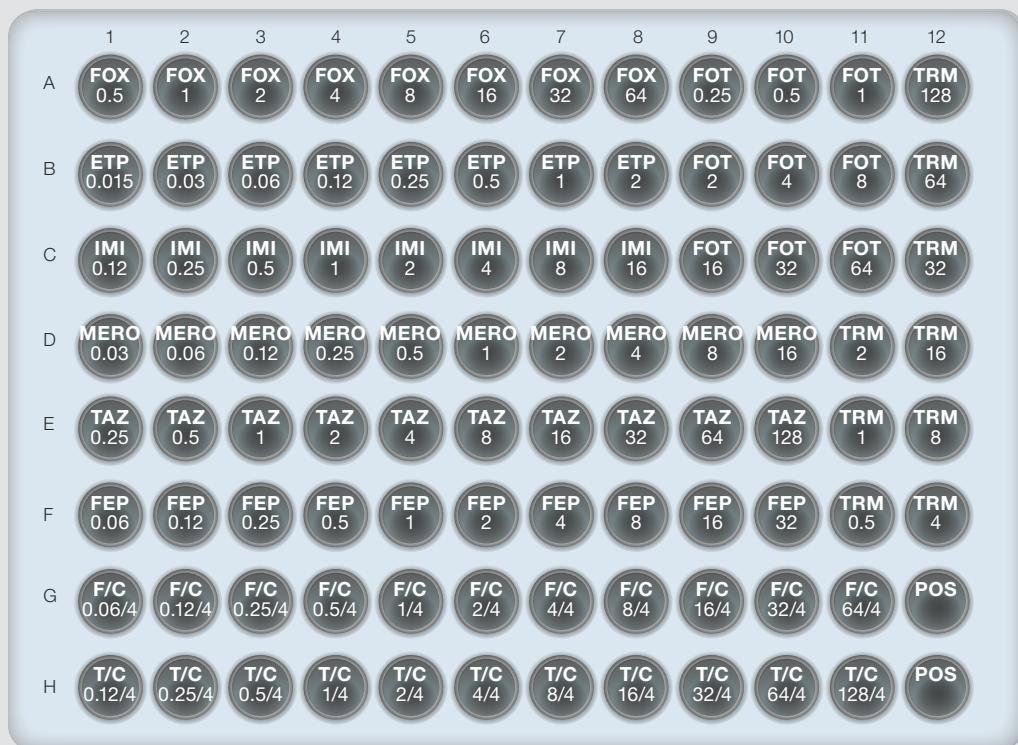
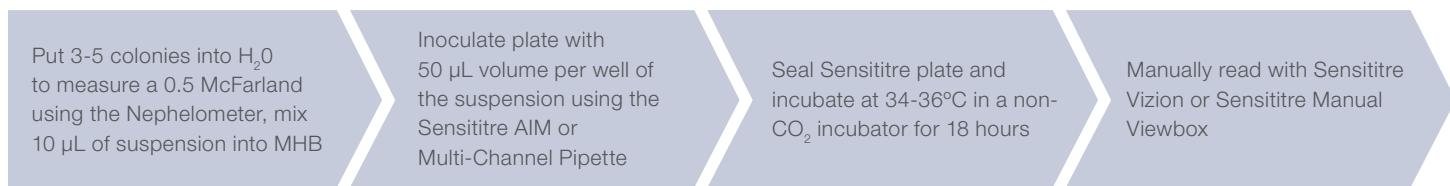
Intended use	Read method	Recommended routine QC strains	
Antimicrobial susceptibility plate for testing <i>Salmonella</i> and <i>E. coli</i> isolates as part of EU surveillance program	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
<b>Broth type</b>		<b>Inoculum preparation</b>	
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)		
		<b>Culti-Loops product code</b> <b>Organism description</b> <hr/> R4607050 <i>Escherichia coli</i> ATCC® 25922™	
		R4607060 <i>Pseudomonas aeruginosa</i> ATCC® 27853™	
		Additional QC strains used for product release	
		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™



AMI	Amikacin
AMP	Ampicillin
AZI	Azithromycin
FOT	Cefotaxime
TAZ	Ceftazidime
CHL	Chloramphenicol
CIP	Ciprofloxacin
COL	Colistin
GEN	Gentamicin
MERO	Meropenem
NAL	Nalidixic Acid
POS	Positive Control
SMX	Sulfamethoxazole
TET	Tetracycline
TGC	Tigecycline
TMP	Trimethoprim

# Sensititre EU Surveillance ESBL EUVSEC2 Plate

Intended use	Read method	Recommended routine QC strains	
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Antimicrobial susceptibility plate for testing ESBL isolates as part of EU surveillance program	<b>Manual and semi-automated</b>		
	Sensititre Vizion (V2021)		<i>Escherichia coli</i> ATCC® 25922™
	Sensititre Manual Viewbox (V4007)		<i>Klebsiella pneumoniae</i> ATCC®700603™
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
			Additional QC strains used for product release
		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™



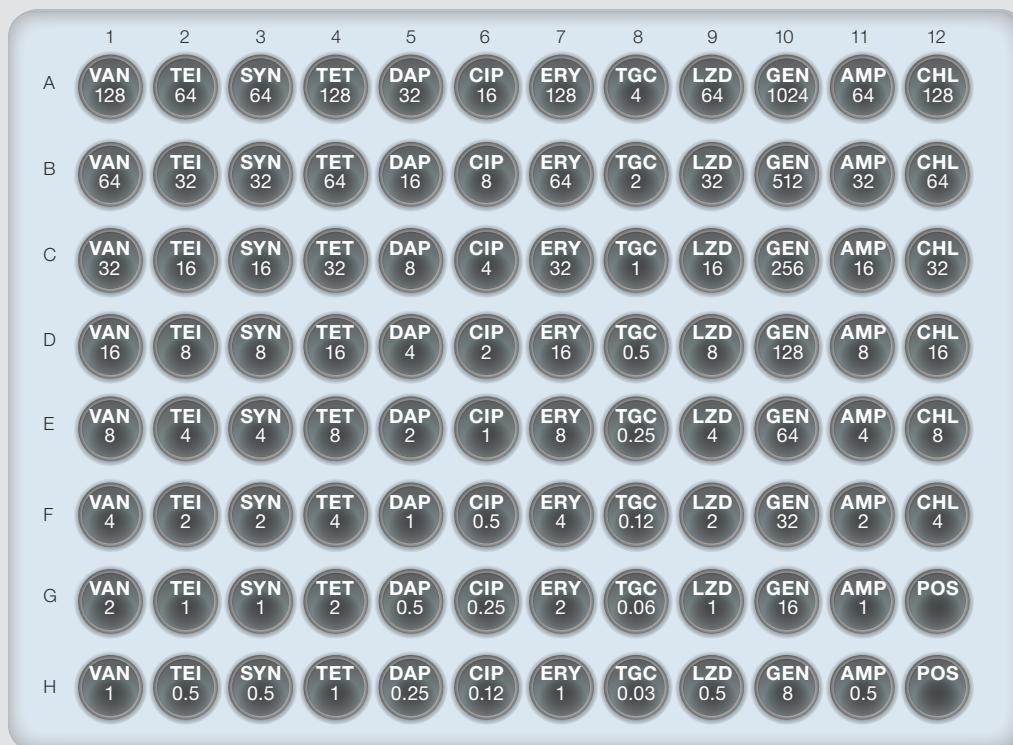
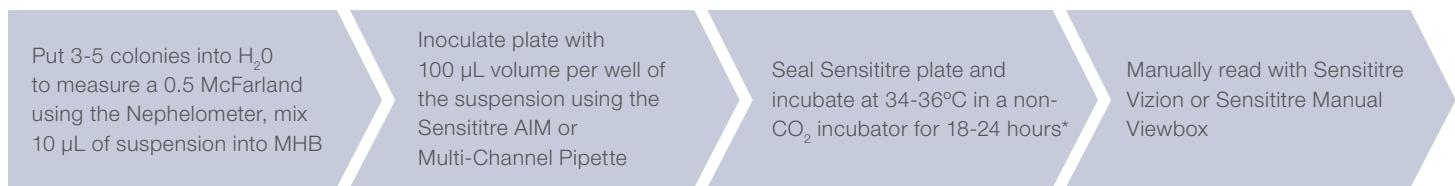
Antimicrobics

<b>FEF</b>	Cefepime
<b>FOT</b>	Cefotaxime
<b>F/C</b>	Cefotaxime/Clavulanic acid
<b>FOX</b>	Cefoxitin
<b>TAZ</b>	Ceftazidime
<b>T/C</b>	Ceftazidime/Clavulanic acid
<b>ETP</b>	Ertapenem
<b>IMI</b>	Imipenem
<b>MERO</b>	Meropenem
<b>POS</b>	Positive control
<b>TRM</b>	Temocillin

# Sensititre EU Surveillance

## Enterococcus EUVENC Plate

Intended use	Read method	Recommended routine QC strains	
Antimicrobial susceptibility plate for testing <i>Enterococcus</i> isolates as part of EU surveillance program	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
<b>Broth type</b>	<b>Inoculum preparation</b>		
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)		
		Additional QC strains used for product release	
		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™



### Antimicrobics

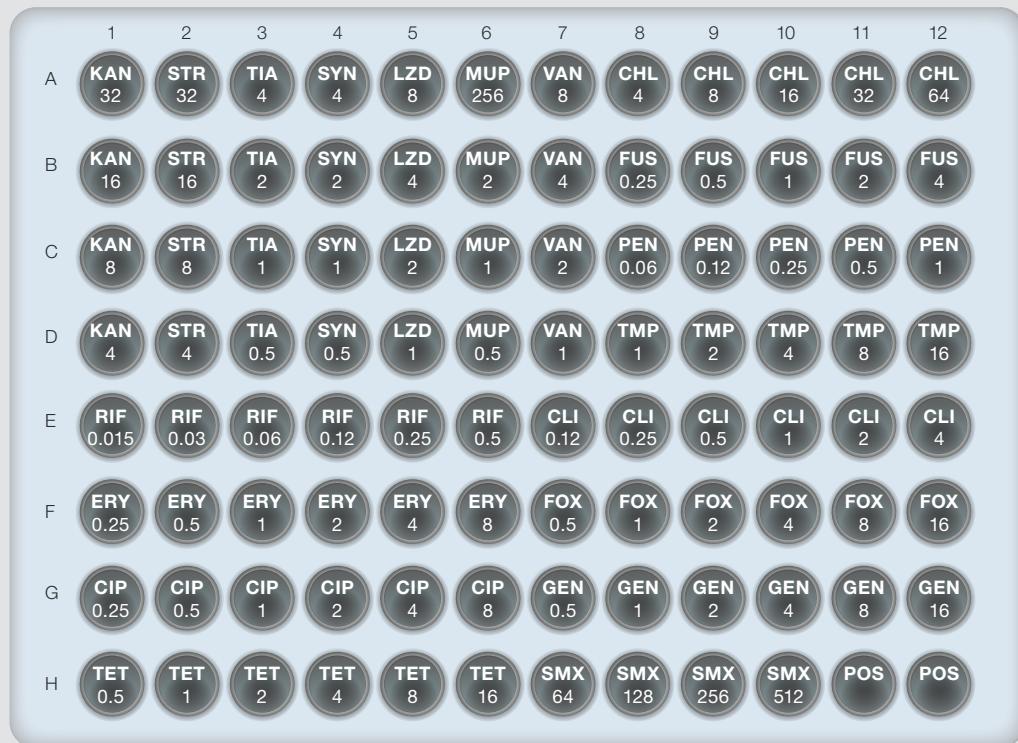
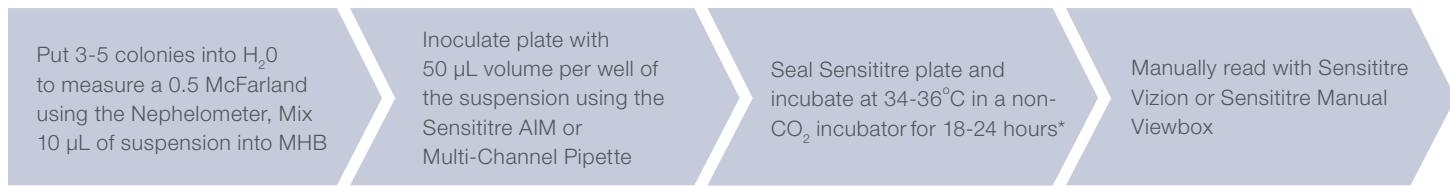
AMP	Ampicillin
CHL	Chloramphenicol
CIP	Ciprofloxacin
DAP	Daptomycin
ERY	Erythromycin
GEN	Gentamicin
LZD	Linezolid
POS	Positive control
SYN	Quinupristin/Dalfopristin
TEI	Teicoplanin
TET	Tetracycline
TGC	Tigecycline
VAN	Vancomycin

\*Incubate for 24 hours to ensure detection of oxacillin-resistant *Staphylococcus* and vancomycin-resistant *Enterococcus* spp.

# Sensititre EU Surveillance

## Staphylococcus EUST2 Plate

Intended use	Read method	Recommended routine QC strains	
Antimicrobial susceptibility plate for testing <i>Staphylococcus</i> isolates as part of EU surveillance program	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
<b>Broth type</b>	<b>Inoculum preparation</b>		Additional QC strains used for product release
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™



### Antimicrobics

FOX	Cefoxitin
CHL	Chloramphenicol
CIP	Ciprofloxacin
CLI	Clindamycin
ERY	Erythromycin
FUS	Fusidate
GEN	Gentamicin
KAN	Kanamycin
LZD	Linezolid
MUP	Mupirocin
PEN	Penicillin
POS	Positive Control
SYN	Quinupristin/dalfopristin
RIF	Rifampin
STR	Streptomycin
SMX	Sulfamethoxazole
TET	Tetracycline
TIA	Tiamulin
TMP	Trimethoprim
VAN	Vancomycin

\*Incubate for 24 hours to ensure detection of oxacillin-resistant *Staphylococcus* and vancomycin-resistant *Enterococcus* spp.

# Sensititre EU Surveillance

## Campylobacter EUCAMP3 Plate

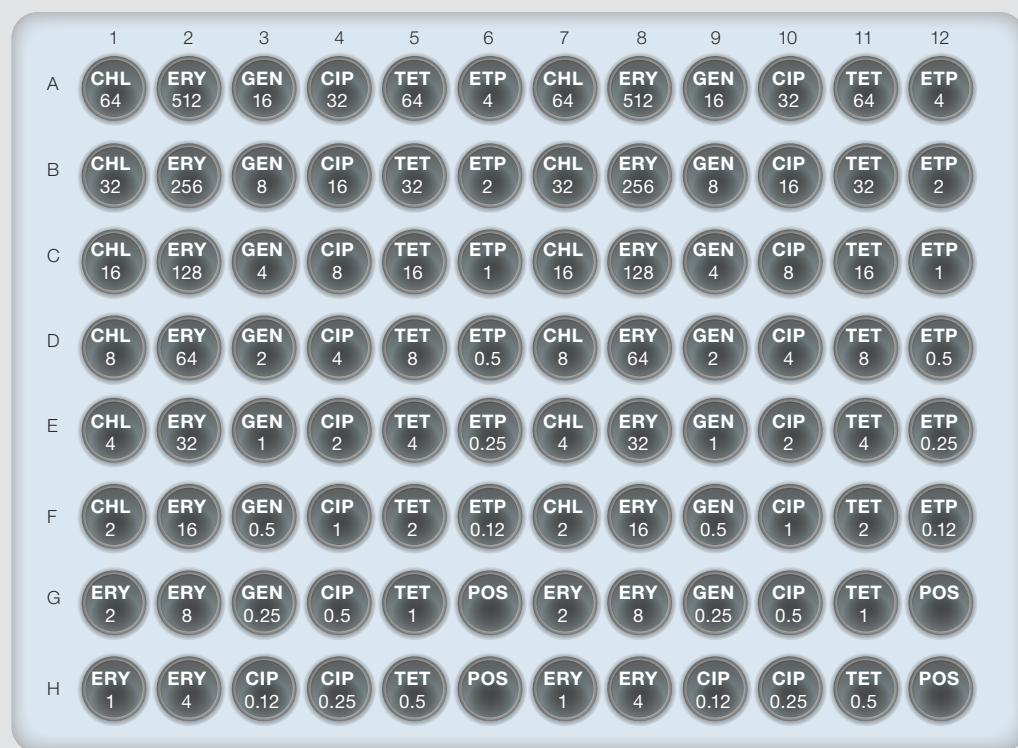
Intended use	Read method	Recommended routine QC strains	
Antimicrobial susceptibility plate for testing Campylobacter isolates as part of EU surveillance program	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	<b>Inoculum preparation</b>		
Sensititre Mueller Hinton Broth w/ Lysed Horse Blood (CP112-10)	0.5 McFarland Standard (E1041) Sensititre Mueller Hinton Broth 5 mL (T3462-05)		
		Additional QC strains used for product release	
		R4609498	<i>Campylobacter jejuni</i> subsp. <i>jejuni</i> ATCC® 33560™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		R4607050	<i>Escherichia coli</i> ATCC® 25922™

Put 3-5 colonies into Sensititre MHB 5 mL to reach a 0.5 McFarland Standard, mix 100 µL into Sensititre MHB w/ LHB

Inoculate plate with 100 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate in a microaerophilic atmosphere\* at 35-37°C for 48 hours or at 42°C for 24 hours\*\*

Manually read with Sensititre Vizion or Sensititre Manual Viewbox



### Antimicrobics

CHL	Chloramphenicol
CIP	Ciprofloxacin
ETP	Ertapenem
ERY	Erythromycin
GEN	Gentamicin
POS	Positive Control
TET	Tetracycline

\*85% N<sub>2</sub>, 10% CO<sub>2</sub>, 5% O<sub>2</sub>. \*\*Do not stack plates more than four high.

# Sensititre NARMS Gram Negative CMV5AGNF Plate

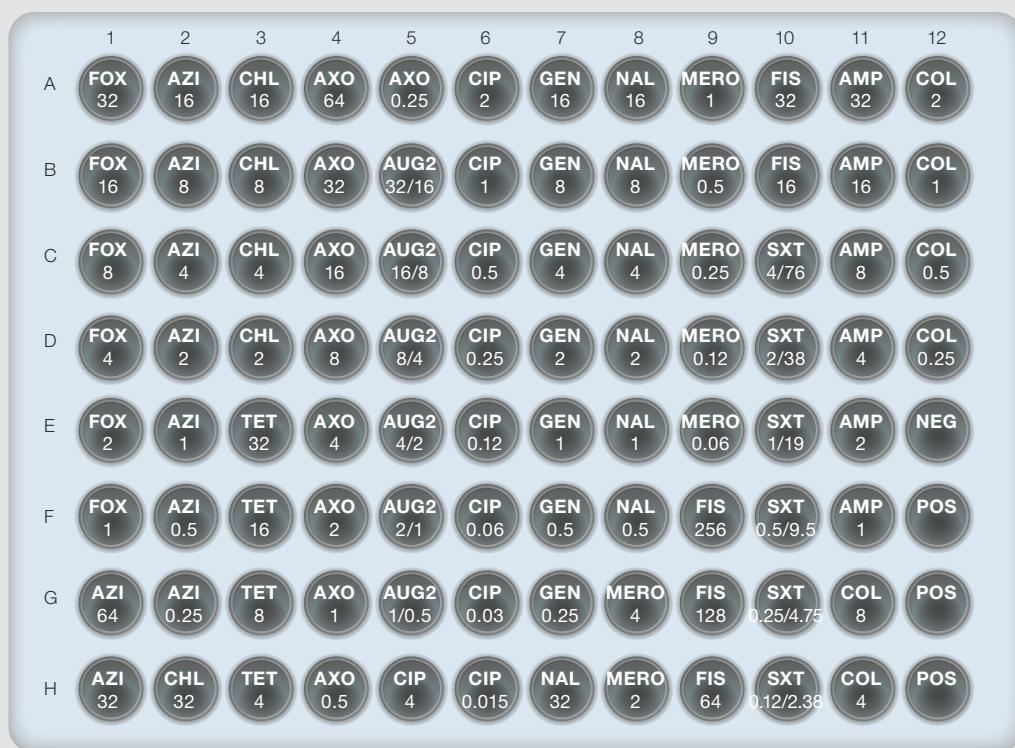
Intended use	Read method	Recommended routine QC strains	
Broth type	Inoculum preparation	Culti-Loops product code	Organism description
Antimicrobial susceptibility plate for testing <i>Salmonella</i> and <i>Escherichia coli</i> isolates as part of The National Antimicrobial National Antimicrobial Resistance Monitoring System (NARMS) program in the United States	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	R4607050 R4601971 R4607060	<i>Escherichia coli</i> ATCC <sup>®</sup> 25922 <sup>TM</sup> <i>Escherichia coli</i> ATCC <sup>®</sup> 35218 <sup>TM</sup> <i>Pseudomonas aeruginosa</i> ATCC <sup>®</sup> 27853 <sup>TM</sup>
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607030 R4607011	Additional QC strains used for product release <i>Enterococcus faecalis</i> ATCC <sup>®</sup> 29212 <sup>TM</sup> <i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC <sup>®</sup> 29213 <sup>TM</sup>

Put 3-5 colonies into H<sub>2</sub>O to measure a 0.5 McFarland using the Nephelometer, mix 10 µL of suspension into MHB

Inoculate plate with 50 µL volume per well of the suspension using the Sensititre AIM or Multi-Channel Pipette

Seal Sensititre plate and incubate at 34-36°C in a non-CO<sub>2</sub> incubator or Sensititre ARIS HiQ<sup>#</sup> for 18 hours

Automatically read with ARIS HiQ<sup>#</sup> or OptiRead or manually read with Sensititre Vizion or Sensititre Manual Viewbox



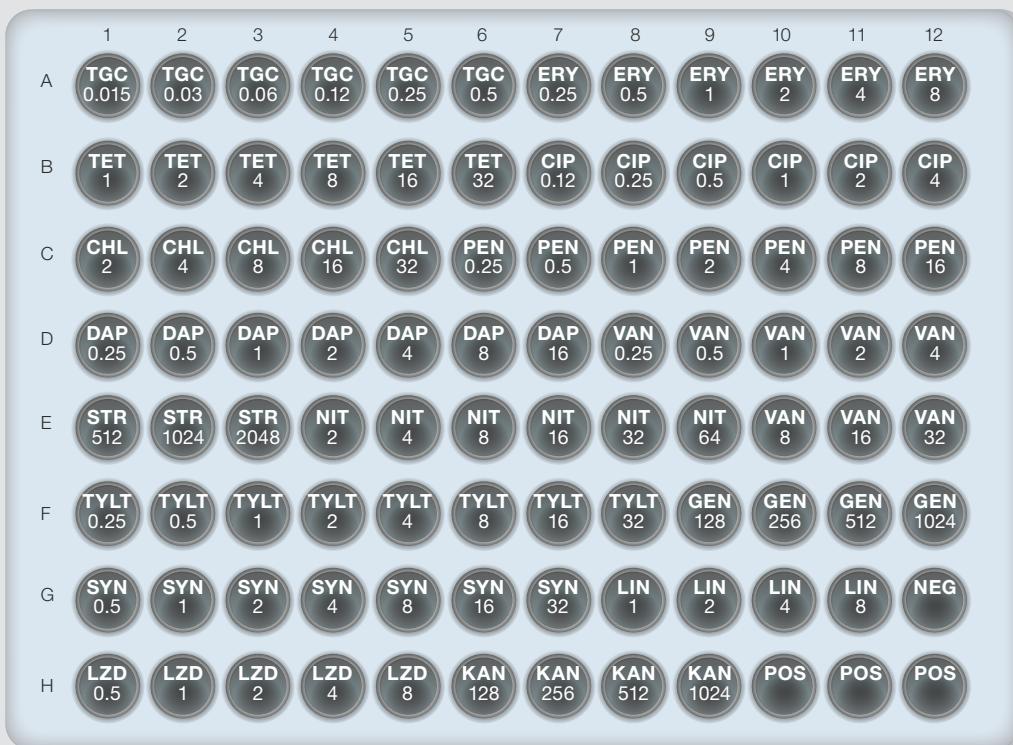
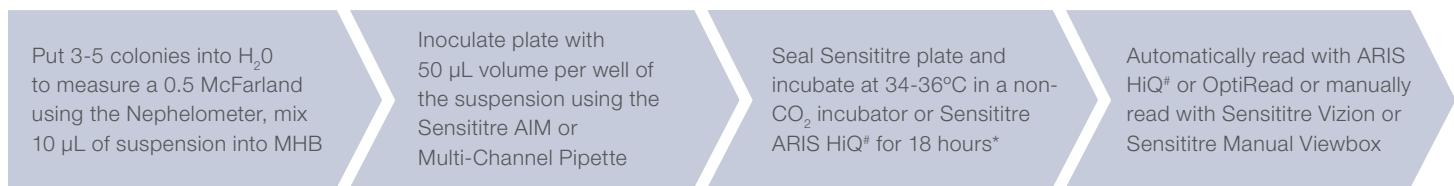
## Antimicrobics

AUG2	Amoxicillin/Clavulanic acid 2:1 ratio
AMP	Ampicillin
AZI	Azithromycin
FOX	Cefoxitin
AXO	Ceftriaxone
CHL	Chloramphenicol
CIP	Ciprofloxacin
COL	Colistin
GEN	Gentamicin
MERO	Meropenem
NAL	Nalidixic Acid
NEG	Negative Control
POS	Positive Control
FIS	Sulfisoxazole
TET	Tetracycline
SXT	Trimethoprim/Sulfamethoxazole

# Sensititre NARMS Gram Positive CMV3AGPF Plate

Intended use	Read method
Antimicrobial susceptibility plate for testing <i>Enterococcus</i> isolates as part of the National Antimicrobial Resistance Monitoring System (NARMS) program in the United States	<b>Autoread or manual</b> Sensititre ARIS HiQ (V4000) <sup>#</sup> Sensititre OptiRead (V3030) Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)
Broth type	Inoculum preparation
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)

Recommended routine QC strains	
Culti-Loops product code	Organism description
R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
R4601996	<i>Enterococcus faecalis</i> ATCC® 51299™
R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™
Additional QC strains used for product release	
R4607050	<i>Escherichia coli</i> ATCC® 25922™
R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™



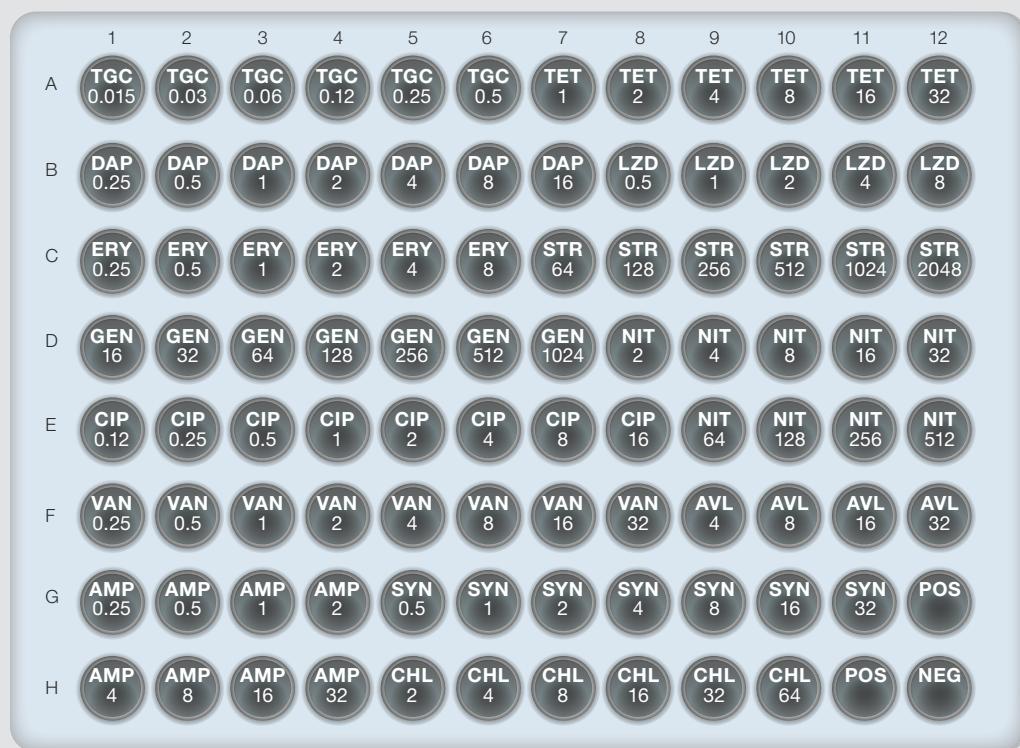
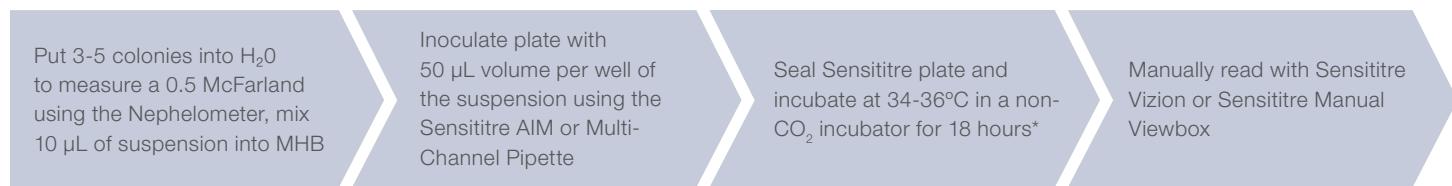
## Antimicrobics

CHL	Chloramphenicol
CIP	Ciprofloxacin
DAP	Daptomycin
ERY	Erythromycin
GEN	Gentamicin
KAN	Kanamycin
LZD	Linezolid
LIN	Lincomycin
NEG	Negative control
NIT	Nitrofurantoin
PEN	Penicillin
POS	Positive control
SYN	Quinupristin/Dalfopristin
STR	Streptomycin
TET	Tetracycline
TGC	Tigecycline
TYLT	Tylosin tartate
VAN	Vancomycin

\*Linezolid and nitrofurantoin should be read manually at 18 hours and vancomycin should be read manually at 24 hours.

# Sensititre NARMS Gram Positive CMV4AGP Plate

Intended use	Read method	Recommended routine QC strains	
Antimicrobial susceptibility plate for testing <i>Enterococcus</i> isolates as part of the National Antimicrobial Resistance Monitoring System (NARMS) program in the United States	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)	Culti-Loops product code	Organism description
R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™	R4601996	<i>Enterococcus faecalis</i> ATCC® 51299™
R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™		
<b>Broth type</b>	<b>Inoculum preparation</b>	Additional QC strains used for product release	
Sensititre Mueller Hinton Broth (T3462)	0.5 McFarland Standard (E1041) Sensititre Sterile Water (T3339)	R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™



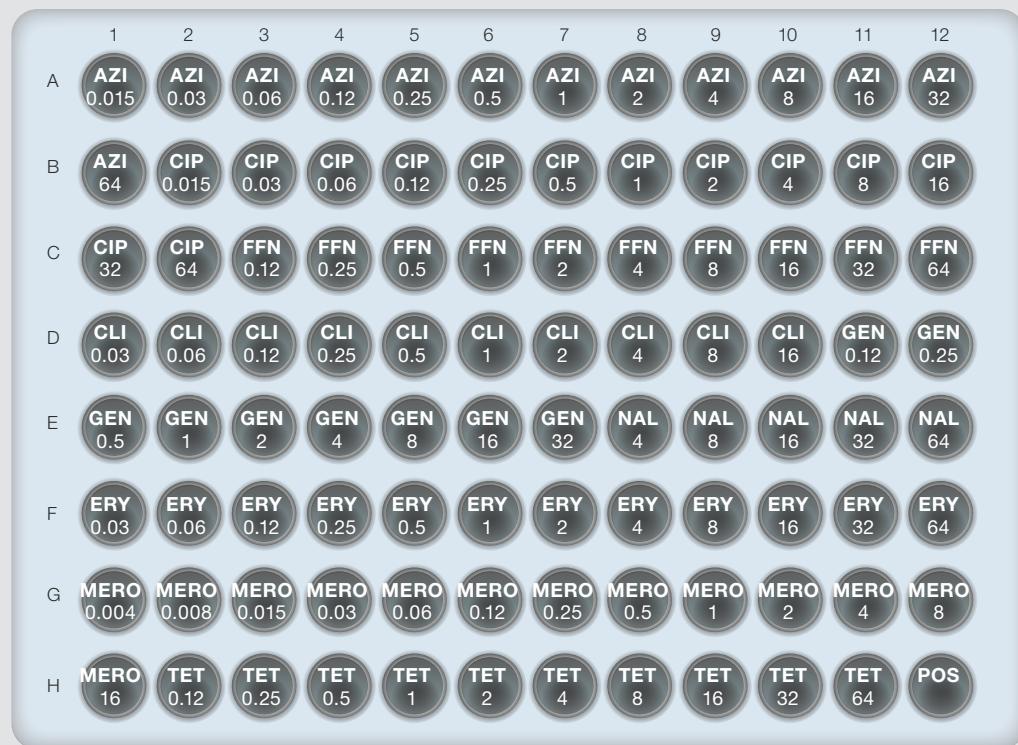
## Antimicrobics

AMP	Ampicillin
AVL	Avilamycin
CHL	Chloramphenicol
CIP	Ciprofloxacin
DAP	Daptomycin
ERY	Erythromycin
GEN	Gentamicin
LZD	Linezolid
NEG	Negative control
NIT	Nitrofurantoin
POS	Positive control
SYN	Quinupristin/Dalfopristin
STR	Streptomycin
TET	Tetracycline
TGC	Tigecycline
VAN	Vancomycin

\*Linezolid and nitrofurantoin should be read manually at 18 hours and vancomycin should be read manually at 24 hours.

# Sensititre NARMS Campylobacter CMVCAMPY Plate

Intended use	Read method	Recommended routine QC strains	
Antimicrobial susceptibility plate for testing <i>Campylobacter</i> isolates part of The National Antimicrobial Resistance Monitoring System (NARMS) program in the United States	<b>Manual and semi-automated</b> Sensititre Vizion (V2021) Sensititre Manual Viewbox (V4007)		
Broth type	<b>Inoculum preparation</b>		
Sensititre Mueller-Hinton broth and lysed horse blood (CP112)	0.5 McFarland Standard (E1041) Sensititre Mueller Hinton Broth 5 mL (T3462-05)		
		Culti-Loops product code	Organism description
		R4609498	<i>Campylobacter jejuni</i> subsp. <i>jejuni</i> ATCC® 33560™
		Additional QC strains used for product release	
		R4607030	<i>Enterococcus faecalis</i> ATCC® 29212™
		R4607050	<i>Escherichia coli</i> ATCC® 25922™
		R4607060	<i>Pseudomonas aeruginosa</i> ATCC® 27853™
		R4607011	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> ATCC® 29213™



## Antimicrobics

AZI	Azithromycin
CIP	Ciprofloxacin
CLI	Clindamycin
ERY	Erythromycin
FFN	Florfenicol
GEN	Gentamicin
MERO	Meropenem
NAL	Nalidixic Acid
POS	Positive Control
TET	Tetracycline

# Customer service and installation

Thermo Fisher Scientific is committed to providing industry-leading customer service. An important part of this service is provided by our dedicated technical support experts. Our team of friendly, experienced microbiologists and engineers are available to give product advice or to help with any technical questions or issues you may have, in your local language.

We provide an end-to-end solution for instrument installation, support and servicing through a network of fully trained Field Service Engineers. And, we can help you set your laboratory up for success and ensure high productivity with a Thermo Scientific™ Extended Service Agreement.

Thermo Fisher Scientific is equipped to deliver a variety of global services to keep you up and running. From preventative maintenance and corrective services to continued application assistance provided by technical scientists, get tailored solutions and exceptional support from the experts in microbiology.



When you choose Thermo Scientific products for your microbiology needs, consider it the start of a valuable partnership. Whether you need assistance with protocols, product transitions or troubleshooting, our team of experts is ready to help.

For more information on how to find solutions perfectly matched for your AST program, please contact your local Thermo Fisher Scientific Microbiology representative or visit us at [thermofisher.com/AST](http://thermofisher.com/AST)

# Supporting you along your Sensititre journey

To provide you with the highest level of support, we have dedicated teams globally to answer your everyday questions and needs. Our objective is to ensure you receive superior personalized service regardless of your geographical location, thereby supporting lab productivity.

To assist you with your inquiries, our Technical Support teams will ask for preliminary information such as:

- Plate code
- Lot number
- Expiry
- Description of problem

Further information will be asked on:

- Organism/drug
- Quality control including organism storage and use
- Sample preparation including broth and McFarland details
- Plate reading
- Software
- Service status of your instruments

## **Local Technical Support contact details:**

### **Benelux**

microbiology.techsupport.benelux@thermofisher.com  
+31 204106503

### **Canada**

micro.ca.techsupport@thermo.com  
1-800-267-6391 option 2

### **France**

microbiologie.techsupport.fr@thermofisher.com  
+33 (0)4 72 52 33 72

### **Germany**

microbiology.techsupport.de@thermofisher.com  
+49 (0)281 152 266

### **Italy**

microbiologia.supportotecnico.it@thermofisher.com  
+39 02 95059 350

### **Nordics**

microbiology.techsupport.nordic@thermofisher.com  
+45 44 80 90 04

### **South Africa**

techsupport.SDG.ZA@thermofisher.com  
+27 79 429 2610

### **Spain**

microbiologia.soporte.es@thermofisher.com  
+34 630 12 84 69

### **UK**

microbiology.techsupport.uk@thermofisher.com  
+44 (0)1256 694238

### **USA**

microbiology.ts.us@thermofisher.com  
1-800-255-6730 option 2

### **Rest of world**

microbiology.techsupport.uk@thermofisher.com  
+44 (0)1256 694238

# Trust in the quality of the Sensititre System

From the receipt of a new antimicrobial compound to a finished broth microdilution plate, the Sensititre plate manufacturing process is thoroughly quality controlled to ensure the utmost integrity of our products.

The manufacturing process is carefully monitored and the finished product tested for performance with as many as 14 different quality control (QC) organisms. All plates undergo the same intensity of testing regardless of whether they will be used as Research Use Only, Veterinary Use or In-vitro Diagnostic Use, ensuring our commitment to product quality and performance.



## The manufacturing process

Antimicrobial compound check: potency & solubility

Fresh stock suspensions for each day of manufacture

Liquid level check of dosed plates

Continuous in-process monitoring of manufacturing equipment

Performance QC testing

Labelling & packaging check

Product release

# Quality control

To ensure your laboratory antimicrobial susceptibility testing solutions are providing accurate and reliable results the need for comprehensive Quality Control (QC) testing is paramount. Thermo Scientific™ Culti-Loops™ Quality Control organisms enable quick and safe preparation of cultures for QC testing. They are ready-to-use bacteriological loops containing gel-stabilised micro-organisms. Each loop is individually packaged in a foil pouch and each pack contains five loops.

Culti-Loops offer a full portfolio of QC strains according to recommendations by CLSI and EUCAST; the strains are fully characterised harbouring a variety of antimicrobial resistance patterns.

To recover the organism, follow the three simple set up steps:



Open package



Apply to warm agar



Incubate



Perform quality control testing with the most comprehensive range of microorganism strains recommended by CLSI and EUCAST. Culti-Loops enable quick and safe preparation of ATCC® and NCTC cultures for QC testing. They are ready-to-use bacteriological loops containing gel-stabilised micro-organisms. Each loop is individually packaged in a foil pouch in a pack of five loops.

Below is a list of Culti-Loops containing the recommended QC strains for EUCAST and CLSI test methods:

Culti-Loops part number	Description	ATCC® strain	Characteristics	EUCAST		CLSI	
				Routine testing	Extended testing	Routine testing	Extended testing
NEW	R4601312	<i>Aspergillus flavus</i>	204304™		✓		✓
NEW	R4601311	<i>Aspergillus fumigatus</i>	204305™		✓		
	R4601250	<i>Bacteroides fragilis</i>	25285™	β-lactamase positive.			✓
	R4601260	<i>Bacteroides thetaiotomicron</i>	29741™	β-lactamase positive.			✓
	R4609498	<i>Campylobacter jejuni</i>	33560™		✓		✓
	R4601496	<i>Candida albicans</i>	90028™			✓	
	R4601518	<i>Candida parapsilosis</i>	22019™		✓		✓
	R4609452	<i>Clostridium difficile</i>	700057™	β-lactamase negative.			✓
	R4601951	<i>Eggerthella lenta</i>	43055™			✓	
	R4607030	<i>Enterococcus faecalis</i>	29212™		✓		✓
	R4601996	<i>Enterococcus faecalis</i>	51299™	Glycopeptide/low-level vancomycin resistance; <i>vanB</i> positive. High-level aminoglycoside resistance; gentamicin and streptomycin resistant.		✓	✓
NEW	R4601301	<i>Enterococcus faecalis</i>	33186™	Suitability of Mueller-Hinton media testing.			✓
NEW	R4601307	<i>Escherichia coli</i>	NCTC 13353	ESBL producer; CTX-M-15, Cephalosporin resistant.			✓
NEW	R4601314	<i>Escherichia coli</i>	NCTC 13846	Colistin resistant; <i>mcr-1</i> positive.	✓		
	R4607050	<i>Escherichia coli</i>	25922™	β-lactamase negative.	✓		✓
	R4601971	<i>Escherichia coli</i>	35218™	β-lactamase producing strain; TEM-1. Non-ESBL.	✓		✓
	R4603810	<i>Haemophilus influenzae</i>	10211™				✓
	R4603830	<i>Haemophilus influenzae</i>	49247™	BLNAR (β-lactamase negative, ampicillin resistant); Reduced susceptibility to β-lactam agents due to PBP mutations.		✓	✓
	R4603806	<i>Haemophilus influenzae</i>	49766™	Ampicillin susceptible.	✓		✓
	R4601520	<i>Issatchenkia orientalis</i>	6258™		✓		✓
	R4603074	<i>Klebsiella pneumoniae</i>	700603™	ESBL producer; SHV-18. Carbapenemase producer; OXA-2. Mutations in OmpK35 and OmpK37 outer membrane porins.	✓	✓	✓
	R4609384	<i>Klebsiella pneumoniae</i>	BAA-1705™	Carbapenemase producer; KPC-2. β-lactamase producer; SHV, TEM.			✓
	R4609385	<i>Klebsiella pneumoniae</i>	BAA-1706™	Carbapenemase negative.			✓
NEW	R4601316	<i>Klebsiella pneumoniae</i>	BAA-2814™	Carbapenemase producer; KPC-3. β-lactamase producer; SHV-11, TEM-1.	✓		✓
	R4609006	<i>Neisseria gonorrhoeae</i>	49226™	CMRNG (Chromosome-mediated resistant Neisseria gonorrhoeae): Low level chromosome mediated resistant to penicillin.			✓
	R4607060	<i>Pseudomonas aeruginosa</i>	27853™	Inducible AmpC β-lactamase.	✓		✓
	R4609389	<i>Staphylococcus aureus</i>	BAA-1708™	High-level mupirocin resistance; <i>mupA</i> positive.			✓
	R4607010	<i>Staphylococcus aureus</i>	25923™	β-lactamase negative, <i>mecA</i> negative, <i>mupA</i> negative.	✓		✓
	R4607011	<i>Staphylococcus aureus</i>	29213™	Weak β-lactamase-producing strain, <i>mecA</i> negative, <i>mupA</i> negative.	✓		✓
	R4609022	<i>Staphylococcus aureus</i>	43300™	Methicillin and Oxacillin resistant MRSA; <i>mecA</i> positive.			✓
	R4606512	<i>Staphylococcus aureus</i>	BAA-976™	Macrolide resistant; <i>msrA</i> positive. Inducible clindamycin resistance negative control.			✓
	R4606513	<i>Staphylococcus aureus</i>	BAA-977™	Inducible <i>ermA</i> -mediated macrolide resistance. Inducible clindamycin resistance positive control.			✓
NEW	R4601313	<i>Staphylococcus aureus</i>	NCTC 12493	Methicillin resistant MRSA; <i>mecA</i> positive.			✓
	R4609015	<i>Streptococcus pneumoniae</i>	49619™	Reduced susceptibility to benzylpenicillin.	✓		✓



\*The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Remel Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures. The identity, purity, and authenticity of the Licensed Products are exclusively the responsibility of Remel Inc., and not ATCC. The European Committee on Antimicrobial Susceptibility Testing. Routine and extended internal quality control for MIC determination and disk diffusion as recommended by EUCAST. Version 8.0, 2018. www.eucast.org. Clinical and Laboratory Standards Institute (CLSI). Performance Standards for Antimicrobial Susceptibility Testing. 27th ed. CLSI supplement M100. Clinical and Laboratory Standards Institute, 950 West Valley Road, Suite 2500, Wayne, Pennsylvania 19087 USA, 2017

# More antimicrobials, more testing options

Our formulary capabilities extends beyond our standard formats. For custom antimicrobics, plate formats and dilution ranges, please contact for further information.

		Thermo Scientific Sensititre Standard Formularies – Clinical																		Yeast				Mycobacteria		NOCARDIA		SLOMYCO1		SLOMYCO2		RAPMYCO1		RAPMYCO2			
Code	Antimicrobial	Gram negative First line				Gram negative Second line				Non-fermenter	Urines	ESBLs	Gram positive				Fastidious	Anaerobes	Yeast				Mycobacteria		NOCARDIA	SLOMYCO1	SLOMYCO2	RAPMYCO1	RAPMYCO2	NOCARDIA	SLOMYCO1	SLOMYCO2	RAPMYCO1	RAPMYCO2			
		GN4F	GN6F	GN/P	EUGNF	MDRGN2F	MDRGNX2F	GNX3F	GNX4F	EUMDROF	EUMDROK	DKMIN	EURGNCOL	NF	EUX2NF	GNUR2F	GNUR3F	ESB1F	FDANDPF	GPALL1F	EUENCF	EUSTAPF	ANAER03	AN02B	Y02ND	Y08	Y09	Y10	MYCOTB								
FC	5-Flucytosine																							✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
AMI	Amikacin	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓																							
AMOX	Amoxicillin																																				
AUGC	Amoxicillin/Clavulanic Acid																																				
AUG2	Amoxicillin/Clavulanic Acid 2:1																																				
AB	Amphotericin B																																				
AMP	Ampicillin	✓	✓	✓																																	
A/S2	Ampicillin/ Sulbactam	✓	✓	✓																																	
AND	Anidulafungin																																				
AZI	Azithromycin																																				
AZT	Aztreonam	✓	✓	✓	✓																																
CAR	Carbenicillin																																				
CAS	Caspofungin																																				
FAC	Cefaclor																																				
FAZ	Cefazolin	✓	✓	✓																																	
FEP	Cefepime	✓	✓	✓	✓																																
FDC	Cefiderocol																																				
FIX	Cefixime																																				
FOP	Cefoperazone																																				
FOT	Cefotaxime																																				
F/C	Cefotaxime/Clavulanic Acid																																				
TANS	Cefotetan Na																																				
FOX	Cefoxitin																																				
FOXS	Cefoxitin Screen																																				
POD	Cefpodoxime																																				
CPT	Ceftaroline																																				
TAZ	Ceftazidime	✓	✓	✓	✓																																
CZA	Ceftazidime/Avibactam	✓	✓	✓																																	
T/C	Ceftazidime/Clavulanic Acid																																				
BPR	Ceftobiprole																																				
C/T	Ceftolozane/Tazobactam	✓	✓																																		
AXO	Ceftriaxone	✓	✓	✓																																	
FUR	Cefuroxime																																				
CEP	Cephalexin																																				
CHL	Chloramphenicol																																				
CIP	Ciprofloxacin	✓	✓	✓	✓																																
CLA	Clarithromycin																																				
CLI	Clindamycin																																				
CFZ	Clofazimine																																				
COL	Colistin*																																				
CYC	Cycloserine																																				



Code	Antimicrobial	Gram negative		Gram negative		Non-fermenter	Uries	ESBLs	Gram positive	Fastidious	Anaerobes	Yeast	Mycobacteria	NOCARDIA
		First line	Second line											SLOWMYCO1
TLC	Telavancin w/ Tween mimic													SLOMYCO2
TRM	Temicillin				✓									RAPMYCO1
TET	Tetracycline	✓	✓	✓					✓	✓	✓	✓	✓	RAPMYCO2
TIC	Ticarcillin								✓					CINNAMYAF
TIM2	Ticarcillin/ Clavulanic Acid	✓		✓					✓					CINW1BURF
TGC	Tigecycline	✓	✓	✓	✓				✓	✓	✓	✓		VAN
TOB	Tobramycin	✓	✓	✓	✓				✓	✓				TOBMYCO1
TMP	Trimethoprim													TOBMYCO2
SXT	Trimethoprim/ Sulfamethoxazole	✓	✓	✓	✓				✓	✓	✓	✓	✓	TOC
VAN	Vancomycin											✓		TOV
VOR	Voriconazole											✓	✓	TOV

### Thermo Scientific Sensititre Standard Formularies – Veterinary

Code	Antimicrobial	Companion		Bovine/ porcine	Avian	Equine	Urine (all)	Bovine (mastitis)	Topical (all)	Companion		Bovine/ porcine	Avian	Equine	Urine (all)	Bovine (mastitis)	Topical (all)
		Gram negative	Gram positive							Gram negative	Gram positive						
		COMPGN1F	COMPGP1F	COMPAN2F						COMPGN1F*	COMPGP1F	COMPAN2F					
AMI	Amikacin	✓	✓	✓													JOEVE2
AMOX	Amoxicillin																CINW1AMA
AUG2	Amoxicillin/ Clavulanic Acid 2:1	✓	✓	✓	✓												VAN
AMP	Ampicillin	✓	✓	✓	✓					✓	✓	✓					CMW1BURF
BAC	Bacitracin																BOP07F
FAZ	Cefazolin	✓	✓	✓						✓							AWAN1F
FEP	Cefepime										✓						EQUIN2F
FOT	Cefotaxime										✓						AWAN1F
FOV	Cefovecin	✓	✓	✓													AWAN1F
FOX	Cefoxitin				✓												AWAN1F
POD	Cefpodoxime	✓	✓	✓													AWAN1F
TAZ	Ceftazidime	✓								✓							AWAN1F
XNL	Ceftiofur				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	AWAN1F
LEX	Cephalexin	✓															AWAN1F
CEP	Cephalothin			✓	✓												AWAN1F
CHL	Chloramphenicol	✓	✓							✓							AWAN1F
CIP	Ciprofloxacin																AWAN1F
CLA	Clarithromycin																AWAN1F
CLI	Clindamycin																AWAN1F
DANO	Danofloxacin																AWAN1F
DOX	Doxycycline	✓	✓	✓							✓						AWAN1F
ENRO	Enrofloxacin	✓	✓	✓	✓					✓	✓	✓					AWAN1F
ERY	Erythromycin																AWAN1F
FFN	Florfenicol									✓	✓						AWAN1F
GEN	Gentamicin	✓	✓	✓	✓					✓							AWAN1F
IMI	Imipenem	✓	✓	✓	✓												AWAN1F
MAR	Marbofloxacin	✓	✓	✓	✓												AWAN1F
MIN	Minocycline																AWAN1F
MXF	Moxifloxacin																AWAN1F
NEO	Neomycin									✓							AWAN1F

## Thermo Scientific Sensititre Standard Formularies – Surveillance

Code	Antimicrobial	Europe				NARMS					
		Gram negative	EU/SEC3	Gram positive	EU/ENC	Campylobacter	Gram negative	CMV/AGNF	Gram positive	CMV/AGP	Campylobacter
AMI	Amikacin	✓									
AUG2	Amoxicillin/Clavulanic Acid 2:1						✓				
AMP	Ampicillin	✓		✓			✓		✓		
AVL	Avilamycin								✓		
AZI	Azithromycin	✓					✓				✓
FEP	Cefepime			✓							
FOT	Cefotaxime	✓	✓								
F/C	Cefotaxime/Clavulanic acid			✓							
FOX	Cefoxitin			✓		✓		✓			
TAZ	Ceftazidime	✓	✓								
T/C	Ceftazidime/Clavulanic acid			✓							
AXO	Ceftriaxone						✓				
CHL	Chloramphenicol	✓		✓	✓	✓	✓	✓	✓	✓	
CIP	Ciprofloxacin	✓		✓	✓	✓	✓	✓	✓	✓	✓
CLI	Clindamycin				✓						✓
COL	Colistin	✓					✓				
DAP	Daptomycin			✓					✓	✓	
ETP	Ertapenem		✓			✓					
ERY	Erythromycin			✓	✓	✓		✓	✓	✓	
FFN	Florfenicol										✓
FUS	Fusidate				✓						
GEN	Gentamicin	✓		✓	✓	✓	✓	✓	✓	✓	✓
IMI	Imipenem		✓								
KAN	Kanamycin				✓			✓			
LZD	Linezolid			✓	✓			✓	✓		
LIN	Lincomycin							✓			
MERO	Meropenem	✓	✓				✓				✓
MUP	Mupirocin				✓						
NAL	Nalidixic Acid	✓					✓				✓
NIT	Nitrofurantoin							✓	✓		
PEN	Penicillin				✓			✓			
SYN	Quinupristin/Dalfopristin			✓	✓			✓	✓		
RIF	Rifampin				✓						
STR	Streptomycin				✓			✓	✓		
SMX	Sulfamethoxazole	✓			✓						
FIS	Sulfisoxazole						✓				
TEI	Teicoplanin	✓									
TRM	Temocillin		✓								
TET	Tetracycline	✓		✓	✓	✓	✓	✓	✓	✓	
TIA	Tiamulin				✓						
TGC	Tigecycline	✓		✓				✓	✓		
TMP	Trimethoprim	✓			✓						
SXT	Trimethoprim/Sulfamethoxazole						✓				
TYLT	Tylosin tartrate							✓			
VAN	Vancomycin			✓	✓			✓	✓		

\*Enterobacteriaceae, Acinetobacter lwoffii, Streptococcus species and S.aureus (MSSA) only. \*\*Enterococcus testing only. \*\*\*Staphylococcus aureus testing only. \*\*\*\*Staphylococcus spp. testing only. Thermo Fisher Scientific products are distributed globally so uses, applications, and availability of product in each country depend on local regulatory marketing authorization status.

## Ordering information

Description	Quantity	Product No
<b>Sensititre Instruments</b>		
Nephelometer	Each	V3011
Sensititre AIM Instrument	Each	V3020
ARIS HiQ Instrument	Each	V4000
Vizion Instrument	Each	V2021
OptiRead Instrument	Each	V3030
SWIN Software	Each	SW4000, SW4000GBL
SWIN Software PC Replacement	Each	6100310SR
SWIN Software Epidemiology Module	Each	SW1203
Sensititre Complete System	Each	V4000-VZ
Laser Printer	Each	615032, SW4000PRN
LED-LCD Multi TOUCH Monitor	Each	SW1303, SW1304, SW1305
Manual Viewbox	Each	V4007
Electronic Multichannel Pipette	Each	V4009
<b>Sensititre Broths</b>		
Demineralized Water	5 mL/box of 10	T3339-10
	5 mL/box of 100	T3339
Demineralized Water with Glass Beads	5 mL/box of 10	T3493**
	5 mL/box of 10	T3492*
HTM Broth	11 mL/box of 10	T3470
Middlebrook 7H9 with OADC	11 mL/box of 10	T3441**
	11 mL/box of 10	T3440*
Mueller-Hinton Broth with Lysed Horseblood	11 mL/box of 10	CP11410
	11 mL/box of 10	CP112-10
Mueller-Hinton Broth with OADC	11 mL/box of 10	T8006**
	11 mL/box of 10	T8005*
Mueller-Hinton Broth with TES	5 mL/box of 10	T34620510
	5 mL/box of 100	T3462-05
	11 mL/box of 10	T3462-10
	11 mL/box of 100	T3462
Saline Tween with Glass Beads	5 mL/box of 10	T3491**
	5 mL/box of 10	T3490*
Supplemented Brucella Broth	11 mL/box of 10	T3450**
	11 mL/box of 10	T3451*
Veterinary Fastidious Medium	11 mL/box of 10	T3460
Veterinary Fastidious MHF Medium (MHF-Y)	11 mL/box of 10	T3461
YeastOne Broth	11 mL/box of 10	Y3462
<b>Sensititre Accessories</b>		
0.5 McFarland Standard	Each	E1041
Adhesive seals for anaerobic plates - perforated	10/pack	G522EA#
	10/pack	G522E†
Adhesive seals for AST plates	10/pack	G520NA#
	10/pack	G520N†
Doseheads	100/box	E3010
Pipetting Reservoirs	200/box	E1032

\*Research use only. \*\* IVD/CE labelled. #Available in North America. † Available in rest of world.  
Thermo Fisher Scientific products are distributed globally so uses, applications, and availability of product in each country depend on local regulatory marketing authorization status.



Find our more at [thermofisher.com/AST](https://thermofisher.com/AST)

©2022 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified.

**Contact Information:**

microbiology@thermofisher.com

USA +800 255 6730

International +44(0) 1256 841144

LT2379B

March 2022

**ThermoFisher**  
SCIENTIFIC