# **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.



## **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 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 N	EGATIVE	GRAM F	POSITIVE	CAMPYLO BACTER	GRAM NEGATIVE	GRAM F	OSITIVE	CAMPYLOBACTER	
	INSTRUMENTS	EUVSEC3	EUVSEC2	EUVENC	EUST2	EUCAMP3	CMV5AGNF	CMV3AGPF	CMV4AGP	CMVCAMPY	
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	

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

Use and methodology **Surveillance** 

Part no. EUVSEC3

Updated version of EUVSEC with changes to antibiotic concentration ranges and addition of amikacin

## Sensititre EU Surveillance Salmonella/E. coli EUVSEC3 Plate

Intended use	Read method
Antimicrobial susceptibility plate for testing <i>Salmonella</i> and <i>E. col</i> i isolates as part of EU surveillance program	<b>Manual and semi-automated</b> 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						
R4607050	07050 Escherichia coli ATCC <sup>®</sup> 25922 <sup>™</sup>						
R4607060	Pseudomonas aeruginosa ATCC <sup>®</sup> 27853™						
Additional QC strains used for product release							
R4607030 Enterococcus faecalis ATCC <sup>®</sup> 29212 <sup>™</sup>							
R4607011	Staphylococcus aureus subsp. aureus ATCC® 29213™						

Put 3-5 colonies into  $H_20$  to measure a 0.5 McFarland using the Nephelometer, Mix 10  $\mu$ L 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-  $\mbox{CO}_2$  incubator for 18 hours

Manually read with Sensititre Vizion or Sensititre Manual Viewbox

	1	2	3	4	5	6	7	8	9	10	11	12
A	AMP 32	<b>AZI</b> 64	<b>AMI</b> 128	GEN 16	TGC 8	TAZ 8	FOT 4	COL 16	NAL 64	TET 32	<b>TMP</b> 16	<b>SMX</b> 512
В	<b>AMP</b> 16	<b>AZI</b> 32	<b>AMI</b> 64	GEN 8	TGC 4	TAZ 4	FOT 2	COL 8	NAL 32	TET 16	TMP 8	<b>SMX</b> 256
С	AMP 8	<b>AZI</b> 16	AMI 32	GEN 4	TGC 2	<b>TAZ</b> 2	FOT 1	COL 4	NAL 16	TET 8	TMP 4	<b>SMX</b> 128
D	AMP 4	AZI 8	<b>AMI</b> 16	GEN 2	TGC 1	TAZ 1	<b>FOT</b> 0.5	COL 2	NAL 8	TET 4	TMP 2	<b>SMX</b> 64
E	AMP 2	AZI 4	AMI 8	GEN 1	<b>TGC</b> 0.5	<b>TAZ</b> 0.5	<b>FOT</b> 0.25	COL 1	NAL 4	TET 2	TMP 1	SMX 32
F	AMP 1	AZI 2	AMI 4	<b>GEN</b> 0.5	<b>TGC</b> 0.25	<b>TAZ</b> 0.25	CHL 8	CHL 16	CHL 32	CHL 64	<b>TMP</b> 0.5	<b>SMX</b> 16
G	<b>MERO</b> 0.03	<b>MERO</b> 0.06	<b>MERO</b> 0.12	<b>MERO</b> 0.25	MERO 0.5	MERO 1	MERO 2	MERO 4	MERO 8	MERO 16	<b>TMP</b> 0.25	SMX 8
н	<b>CIP</b> 0.015	<b>CIP</b> 0.03	<b>CIP</b> 0.06	<b>CIP</b> 0.12	<b>CIP</b> 0.25	<b>CIP</b> 0.5	CIP 1	CIP 2	CIP 4	CIP 8	POS	POS

#### Antimicrobics

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

Region Europe

Gram negative

# Sensititre EU Surveillance ESBL EUVSEC2 Plate

Intended use	Read method
Antimicrobial susceptibility plate for testing ESBL isolates as part of EU surveillance program	Manual and semi-automated 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
R4607050	Escherichia coli ATCC® 25922™
R4603074	Klebsiella pneumoniae ATCC®700603™
R4607060	Pseudomonas aeruginosa ATCC <sup>®</sup> 27853™
Additional QC	strains used for product release
R4607030	Enterococcus faecalis ATCC <sup>®</sup> 29212 <sup>™</sup>
R4607011	Staphylococcus aureus subsp. aureus ATCC <sup>®</sup> 29213™

Put 3-5 colonies into  $H_20$  to measure a 0.5 McFarland using the Nephelometer, mix 10  $\mu$ L 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-  $\rm CO_2$  incubator for 18 hours

Manually read with Sensititre Vizion or Sensititre Manual Viewbox

	1	2	3	4	5	6	7	8	9	10	11	12
A	<b>FOX</b> 0.5	FOX 1	FOX 2	FOX 4	FOX 8	<b>FOX</b> 16	<b>FOX</b> 32	<b>FOX</b> 64	<b>FOT</b> 0.25	<b>FOT</b> 0.5	FOT 1	<b>TRM</b> 128
В	<b>ETP</b> 0.015	<b>ETP</b> 0.03	<b>ETP</b> 0.06	<b>ETP</b> 0.12	<b>ETP</b> 0.25	<b>ETP</b> 0.5	ETP 1	ETP 2	FOT 2	FOT 4	FOT 8	<b>TRM</b> 64
С	<b>IMI</b> 0.12	IMI 0.25	IMI 0.5	IMI 1	IMI 2	IMI 4	IMI 8	<b>IMI</b> 16	<b>FOT</b> 16	<b>FOT</b> 32	<b>FOT</b> 64	TRM 32
D	<b>MERO</b> 0.03	<b>MERO</b> 0.06	<b>MERO</b> 0.12	<b>MERO</b> 0.25	MERO 0.5	MERO 1	MERO 2	MERO 4	MERO 8	MERO 16	TRM 2	<b>TRM</b> 16
E	<b>TAZ</b> 0.25	<b>TAZ</b> 0.5	TAZ 1	TAZ 2	TAZ 4	TAZ 8	<b>TAZ</b> 16	<b>TAZ</b> 32	<b>TAZ</b> 64	<b>TAZ</b> 128	TRM 1	TRM 8
F	<b>FEP</b> 0.06	<b>FEP</b> 0.12	<b>FEP</b> 0.25	FEP 0.5	FEP 1	FEP 2	FEP 4	FEP 8	<b>FEP</b> 16	FEP 32	<b>TRM</b> 0.5	TRM 4
G	<b>F/C</b> 0.06/4	<b>F/C</b> 0.12/4	<b>F/C</b> 0.25/4	<b>F/C</b> 0.5/4	<b>F/C</b> 1/4	<b>F/C</b> 2/4	<b>F/C</b> 4/4	<b>F/C</b> 8/4	<b>F/C</b> 16/4	<b>F/C</b> 32/4	<b>F/C</b> 64/4	POS
Н	<b>T/C</b> 0.12/4	<b>T/C</b> 0.25/4	<b>T/C</b> 0.5/4	<b>T/C</b> 1/4	<b>T/C</b> 2/4	<b>T/C</b> 4/4	<b>T/C</b> 8/4	<b>T/C</b> 16/4	<b>T/C</b> 32/4	<b>T/C</b> 64/4	<b>T/C</b> 128/4	POS

#### Antimicrobics

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