ANTIMICROBIAL RESISTANCE BANK

SERRATIA MARCESCENS

AR-BANK#0099

KNOWN ACQUIRED RESISTANCE:

(+) SME

Reduced susceptibility, elevated Carbapenem MICs.

Known Resistance is listed above by (+) for positive result and (–) for negative result.

PROPAGATION

MEDIUM

Medium: Trypticase Soy Agar with 5% Sheep Blood (BAP)

GROWTH CONDITIONS

Temperature: **35°C**
Atmosphere: **Aerobic**

PROPAGATION PROCEDURE

Remove the sample vial to a container with dry ice or a freezer block. Keep vial on ice or block. (Do not let vial content thaw)

Open vial aseptically to avoid contamination

Using a sterile loop, remove a small amount of frozen isolate from the top of the vial

Aseptically transfer the loop to BAP

Use streak plate method to isolate single colonies

Incubate inverted plate at 35°C for 18-24 hrs.

MIC (µg/ml) RESULTS AND INTERPRETATION

DRUG	MIC	INT	DRUG	MIC	INT
Amikacin	2	S	Doripenem	>8	R
Amoxicillin/Clavulanic Acid*	>32	R	Ertapenem	>8	R
Ampicillin	>32	R	Gentamicin	0.5	S
Ampicillin/Sulbactam*	>32	R	Imipenem	>64	R
Aztreonam	>64	S	Imipenem+chelators**	>32	---
Cefazolin	>8	R	Levofloxacin	0.25	S
Cefepime	≤0.5	S	Meropenem	>8	R
Cefotaxime	≤0.5	S	Piperacillin/Tazobactam*	≤4	S
Cefoxitin	>16	R	Polymyxin B	4	---
Ceftazidime	≤1	S	Tetracycline	8	I
Ceftriaxone	≤1	S	Tigecycline***	1	S
Ciprofloxacin	0.5	S	Tobramycin	2	S
Colistin	4	---	Trimethoprim/Sulfamethoxazole*	≤0.5	S

S – I –R Interpretation (INT) derived from *CLSI 2015 M100 S25*
SDD (Susceptible Dose Dependent)
* Reflects MIC of first component
** Screen for metallo-beta-lactamase production
[Rasheed et al. Emerging Infectious Diseases. 2013. 19(6):870-878]
*** Based on FDA break points

SEQUENCING INFORMATION: No Sequencing information available at this time.

ACCESSION #	SEQUENCING SOURCE	LINK

BIOSAFETY LEVEL 2

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *BioSafety in Microbiological and Biomedical Laboratories* (HHS Publication No. (CDC) 21-1112) from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, and National Institutes of Health.

DISCLAIMERS

This product is sent with the condition that you are responsible for its safe storage, handling, and use. All materials are the property of the Centers for Disease Control and Prevention (CDC) and have been made available on behalf of the Food and Drug Administration (FDA). This material is not for use in human subjects and may not be redistributed. While CDC uses reasonable efforts to include accurate and up-to-date information on this product sheet, CDC makes no warranties or representations as to its accuracy. CDC is not liable for damages arising from the misidentification or misrepresentation of cultures. Please refer to the Standard Letter Agreement (SLA) for further details regarding the use of this product.