ANTIMICROBIAL RESISTANCE BANK

ESCHERICHIA COLI

AR-BANK#0348

Key RESISTANCE:

Ceftazidime/avibactam resistance

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	Colistin	≤0.25	---
Ampicillin	>32	R	Doripenem	>8	R
Ampicillin/sulbactam[1]	>32	R	Ertapenem	>8	R
Aztreonam	>64	R	Gentamicin	0.5	S
Cefazolin	>8	R	Imipenem	64	R
Cefepime	>32	R	Imipenem+chelators[2]	16	---
Cefotaxime	>64	R	Levofloxacin	>8	R
Cefotaxime/clavulanic acid[1]	>32	---	Meropenem	>8	R
Cefoxitin	>16	R	Piperacillin/tazobactam[1]	>128	R
Ceftazidime	>128	R	Polymyxin B	0.5	---
Ceftazidime/avibactam[1]	>16	R[3]	Tetracycline	>32	R
Ceftazidime/clavulanic acid[1]	>64	---	Tigecycline	≤0.5	S[3]
Ceftriaxone	>32	R	Tobramycin	≤0.5	S
Ciprofloxacin	>8	R	Trimethoprim/sulfamethoxazole[1]	>8	R

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

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.

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