ANTIMICROBIAL RESISTANCE BANK

ESCHERICHIA COLI

AR-BANK#0086

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.

KNOWN ACQUIRED RESISTANCE:

(+) CTX-M9

Reduced susceptibility, elevated Carbapenem MICs.
Known Resistance is listed above by (+) for positive result and (–) for negative result.

MIC (µg/ml) RESULTS AND INTERPRETATION

DRUG	MIC	INT	DRUG	MIC	INT
Amikacin	2	S	Colistin	0.5	---
Amoxicillin/Clavulanic Acid*	16	I	Doripenem	≤0.12	S
Ampicillin	>32	R	Ertapenem	1	I
Ampicillin/Sulbactam*	>32	R	Gentamicin	>16	R
Aztreonam	32	R	Imipenem	≤0.5	S
Cefazolin	>8	R	Imipenem+chelators**	≤0.25	---
Cefepime	>32	R	Levofloxacin	>8	R
Cefotaxime	>64	R	Meropenem	≤0.12	S
Cefotaxime/Clavulanic Acid*	4	---	Piperacillin/Tazobactam*	32	I
Cefoxitin	>16	R	Polymyxin B	1	---
Ceftazidime	1	R	Tetracycline	>32	R
Ceftazidime/Clavulanic Acid*	1	---	Tigecycline***	≤0.5	S
Ceftriaxone	>32	R	Tobramycin	16	R
Ciprofloxacin	>8	R	Trimethoprim/Sulfamethoxazole*	>8	R

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.

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