



# MICRONAUT

## ● MICRONAUT-S Pseudomonas MIC

### What can it be used for?

Multi-drug resistance among gram-negative pathogens has increased worldwide in recent years, impacting both hospital and community acquired infections. Bacterial species like *Pseudomonas aeruginosa*, *Acinetobacter* species from the *baumannii* group or *Stenotrophomonas maltophilia* have developed increased resistance or are naturally resistant against many antibiotic agents.

The MICRONAUT-S Pseudomonas MIC AST plate provides an efficient tool for phenotypic susceptibility testing of critically important antibiotics against the mentioned pathogens by broth microdilution (BMD) method.

### Antibiotics

Including critically important antibiotics like ceftazidime-avibactam, ceftolozane-tazobactam and colistin, showing good antimicrobial efficacy against gram-negative bacteria.

|                        |                               |
|------------------------|-------------------------------|
| Amikacin               | Gentamicin                    |
| Aztreonam              | Imipenem                      |
| Cefepime               | Levofloxacin                  |
| Ceftazidime            | Meropenem                     |
| Ceftazidime-avibactam  | Piperacillin                  |
| Ceftolozane-tazobactam | Piperacillin-tazobactam       |
| Ciprofloxacin          | Tobramycin                    |
| Colistin               | Trimethoprim-sulfamethoxazole |
| Fosfomicin             |                               |

## Features and benefits

- Standardized MIC determination by BMD for a broad spectrum of antibiotics like ceftazidime-avibactam, ceftolozane-tazobactam, colistin and other critically important antibiotic agents
- Due to the spectrum of antibiotics, the MIC plate is appropriate for testing non-fermenting organisms like *Pseudomonas aeruginosa*, *Acinetobacter* species from the *baumannii* group or *Stenotrophomonas maltophilia*
- Reading and evaluation of the AST results can be performed visually or photometrically
- The MICRONAUT software provides reading, evaluation and interpretation according to the latest EUCAST or CLSI criteria

## Procedure

- Prepare a 0.5 McFarland standard bacteria suspension in NaCl
- Transfer an aliquot into Mueller Hinton Broth, cation-adjusted (CAMHB)
- Inoculate the MICRONAUT-S *Pseudomonas* MIC plate
- Incubate for 18-22 hours at 35-37°C
- Read the results visually or measure photometrically

## Shelf life and storage

- Shelf life: 24 months from date of production
- Storage: at room temperature (15-25°C)

### Antibiotics & Concentrations (mg/L)

|                                      |       |      |      |      |     |      |       |       |
|--------------------------------------|-------|------|------|------|-----|------|-------|-------|
| <b>Amikacin</b>                      | 32    | 16   | 8    | 4    | -   | -    | -     | -     |
| <b>Aztreonam</b>                     | 16    | 8    | 4    | 1    | -   | -    | -     | -     |
| <b>Cefepime</b>                      | 8     | 4    | 2    | 1    | -   | -    | -     | -     |
| <b>Ceftazidime</b>                   | 32    | 16   | 8    | 4    | 2   | 1    | 0.5   | 0.25  |
| <b>Ceftazidime-avibactam</b>         | 8/4   | 4/4  | 2/4  | 1/4  | -   | -    | -     | -     |
| <b>Ceftolozane-tazobactam</b>        | 8/4   | 4/4  | 2/4  | 1/4  | -   | -    | -     | -     |
| <b>Ciprofloxacin</b>                 | 8     | 4    | 2    | 1    | 0.5 | 0.25 | 0.125 | 0.06  |
| <b>Colistin</b>                      | 8     | 4    | 2    | 1    | -   | -    | -     | -     |
| <b>Fosfomycin</b>                    | 128   | 64   | 32   | 16   | -   | -    | -     | -     |
| <b>Gentamicin</b>                    | 32    | 16   | 8    | 4    | 2   | 1    | 0.5   | 0.25  |
| <b>Imipenem</b>                      | 8     | 4    | 2    | 1    | -   | -    | -     | -     |
| <b>Levofloxacin</b>                  | 8     | 4    | 2    | 1    | 0.5 | 0.25 | 0.125 | -     |
| <b>Meropenem</b>                     | 16    | 8    | 4    | 2    | 1   | 0.5  | 0.25  | 0.125 |
| <b>Piperacillin</b>                  | 32    | 16   | 8    | 4    | -   | -    | -     | -     |
| <b>Piperacillin-tazobactam</b>       | 128/4 | 64/4 | 32/4 | 16/4 | 8/4 | 4/4  | 2/4   | 1/4   |
| <b>Tobramycin</b>                    | 32    | 16   | 8    | 4    | 2   | 1    | 0.5   | 0.25  |
| <b>Trimethoprim-sulfamethoxazole</b> | 8/152 | 4/76 | 2/38 | 1/19 | -   | -    | -     | -     |

### Order Information

#### MICRONAUT-S *Pseudomonas* MIC

1 test per plate, 40 plates per box / Part No. E1-221-040

#### Mueller-Hinton Broth, cation-adjusted

1 tube per test, 20 tubes per box / Part No. E2-331-020

1 tube per test, 100 tubes per box / Part No. E2-331-100

Please contact your local representative for availability in your country.  
Not for sale in the USA.



As of May 2021, Bruker Daltonik GmbH is now Bruker Daltonics GmbH & Co. KG.

●  **Bruker Daltonics GmbH & Co. KG**

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