

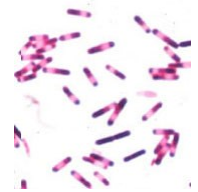
MIC testing for Anaerobes

Micronaut Anaerobe MIC plate provides laboratories with the possibility to determine the MIC of 9 antibiotic and partial MIC of a further 2 on a single plate.

The method used is broth microdilution described in ISO 20776-1:2006 referred to in EUCAST documents

MICRONAUT—S Anaerobe MIC

Provides MIC's for relevant antibiotics used to treat or identify anaerobic infections



Antibiotic resistance amongst anaerobic pathogens is growing.

An article, in a special issue of Anaerobes in 2015, by Boyanova et al cites;

> *Bacteroides* and *Clostridium difficile* resistance to moxifloxacin increased globally.

> *Bacteroides*, *Prevotella*, *C. difficile* and anaerobic cocci showed resistance changes to amoxicillin/clavulanate, ampicillin/sulbactam, clindamycin, ceftiofur/cefotetan and carbapenems

reference: Recent evolution of antibiotic resistance in the anaerobes as compared to previous decades. Anaerobe 31 (2015) 4-10

Active Agents

Amoxicillin/Clavulanate
Ampicillin
Clindamycin
Doxycycline
Ertapenem
Imipenem
Meropenem
Metronidazole
Moxifloxacin
Penicillin G
Piperacillin/Tazobactam
Tigecycline
Vancomycin

Antibiotics & Concentrations (µg/ml)

Amoxicillin/Clavulanate	64/32	32/16	16/8	8/4	4/2	2/1	1/0.5	0.5/0.25
Ampicillin	8	4	2	1	0.5	0.25	0.125	0.0625
Clindamycin	8	4	2	1	0.5	0.25	0.125	0.0625
Doxycyclin	16	8	4	2	1	0.5	0.25	0.125
Ertapenem	16	8	4	2	1	0.5	0.25	0.125
Imipenem	64	32	16	8	4	2	1	0.5
Meropenem	64	32	16	8	4	2	1	0.5
Metronidazole	32	16	8	4	2	1	0.5	0.25
Moxifloxacin	8	4	2	1	0.5	0.25	0.125	0.0625
Penicillin G	8	4	2	1	0.5	0.25	0.125	0.0625
Piperacillin/Tazobactam	128/4	64/4	32/4	16/4	8/4	4/4	2/4	1/4
Tigecyclin	8	4	2	1				
Vancomycin	8	4	2					

Procedure

- Produce bacteria suspension in NaCl (McFarland 0.5)
- Transfer into Mueller-Hinton II broth
- Inoculate MICRONAUT-S test plate
- Incubate for 18-24 hours at 35-37°C
- Measure photometrically and interpret with MICRONAUT software

Shelf-life and storage

Due to a special vacuum drying method the plates can be stored at a room temperature of 15-25°C. The MICRONAUT test plates have a shelf life

International ISO Standard Method

Merlin Micronaut is a broth microdilution system using the international reference methodology (ISO 20776-1). MIC levels are based on EUCAST guidelines where they are available.

Interpretation, Automation and Maltitof

Micronaut microdilution products are enhanced by software with EUCAST levels and expert rules. Automation is available from entry level to full robotics. Bar-coding provides traceability. Integration with Bruker