



MTS™ Technical Sheet Anaerobes

Specimen

Blood, wounds, respiratory (transtracheal aspirate) and sterile sites (CNS, tissues, joint fluids).

Medium	Brucella Blood Agar w Hemin and Vitamin K1 (Ref. 10245) or Fastidious Anaerobe Agar (Ref. 10062).
Inoculum	Suspension in Brucella or "anaerobic" broth to 1 McFarland (Ref. 80401) turbidity. Make sure anaerobic conditions are kept at all times for obligate anaerobes.
Incubation	36 ± 1°C / anaerobically / 24-72 hours. Obtain rapid anaerobiosis within 1-2 hours for Metronidazole.
Evaluating the results	Bactericidal drugs: interpret the MIC at complete inhibition of growth including microcolonies, hazes and isolated colonies. Bacteriostatic drugs: interpret the MIC at 80% inhibition when trailing is seen. If a "dip" is observed with MIC Test Strip Clindamycin, extrapolate the ellipse to the strip.

	Quality Control (MIC µg/mL)			CLSI INTERPRETATION MIC Criteria (µg/mL)			EUCAST INTERPRETATION MIC Criteria (µg/mL)		Examples of ANTIBIO GRAM 140 mm petri dish
	<i>B. fragilis</i> ATCC® 25285 ^c	<i>B. thetaiotaomicron</i> ATCC® 29741 ^c	<i>E. lentum</i> ATCC® 43055 ^c	S	I	R	S	R	
AUG AMOXICILLIN-CLAVULANIC ACID (2/1) ^a	0.25-1	0.25-1	-	≤4	8	≥16			
AMS AMPICILLIN-SULBACTAM (2/1) ^a	0.5-2	0.5-2	0.5-2	≤8	16	≥32			
P PENICILLIN G	8-32	8-32	-	≤0.5	1	≥2	≤0.25	>0.5	✓
<i>F. necrophorum</i> <i>C. perfringens</i> <i>C. acnes</i>							≤0.5 ≤0.5 ≤0.06	>0.5 >0.5 >0.06	
FOX CEFOXITIN	2-8	8-64	2-16	≤16	32	≥64			✓
CD CLINDAMYCIN	0.5-2	2-8	0.06-0.25	≤2	4	≥8	≤4	>4	✓
<i>Bacteroides</i> spp. <i>Prevotella</i> spp. <i>F. necrophorum</i> <i>C. perfringens</i> <i>C. acnes</i>							≤(4) ^d ≤0.25 ≤0.25 ≤0.25 ≤0.25	>(4) ^d >0.25 >0.25 >0.25 >0.25	
ETP ERTAPENEM	0.06-0.5	0.5-2	0.5-4	≤4	8	≥16			✓ or MRP or IMI
IMI IMIPENEM	0.03-0.25	0.25-1	0.25-2	≤4	8	≥16			
MRP MEROPENEM	0.03-0.25	0.06-0.5	0.12-1	≤4	8	≥16			
<i>Bacteroides</i> spp. <i>Prevotella</i> spp. <i>F. necrophorum</i> <i>C. perfringens</i> <i>C. acnes</i>							≤1 ≤0.03 ≤0.12 ≤0.12 ≤0.12	>1 >0.03 >0.12 >0.12 >0.12	
MTZ METRONIDAZOLE	0.25-2	0.5-4	0.12-0.5	≤8	16	≥32			✓
<i>Bacteroides</i> spp. <i>Prevotella</i> spp. <i>F. necrophorum</i> <i>C. perfringens</i> <i>C. difficile</i>							≤4 ≤4 ≤0.5 ≤4 ≤2	>4 >4 >0.5 >4 >2	
TZP PIPERACILLIN-TAZOBACTAM ^{a,b}	0.12-0.5	4-16	4-16	≤16	32-64	≥128	≤8	>16	✓ or AUG or AMS or TTC
<i>Bacteroides</i> spp. (except <i>B. thetaiotaomicron</i>) <i>Prevotella</i> spp. <i>F. necrophorum</i> <i>C. perfringens</i> <i>C. acnes</i>							≤8 ≤0.5 ≤0.5 ≤0.5 ≤0.25	>8 >0.5 >0.5 >0.5 >0.25	
TTC TICARCILLIN-CLAVULANIC ACID ^a	0.06-0.5	0.5-2	8-32	≤32	64	≥128			

Susceptible (S), Intermediate (I), Resistant (R)

Footnotes

- Value on the MIC scale refers to the first component of the combination.
- MTS™ Piperacillin-tazobactam TZP is available in two different concentration ranges of Piperacillin, each intended for specific applications:
 - 0.016 - 256 µg/mL for determining MIC of Enterobacterales, *Pseudomonas aeruginosa* and *Acinetobacter* spp. (Ref. 921081 / 92108 / 921080)
 - 0.064 - 1024 µg/mL for determining MIC of *Haemophilus* spp. and Anaerobes (Ref. 921131 / 92113 / 921130)
 The concentration of Tazobactam is fixed at 4 µg/mL in both cases.
- Liofilchem routine QC is performed on Brucella Blood Agar w Hemin and Vitamin K1.
- For information on how to use breakpoints in brackets, see <https://www.eucast.org/eucastguidancedocuments/>

Disclaimer: Tables in this document are intended for general guidance only and may not contain all the necessary information. Also reported interpretive criteria and QC MIC ranges might be out of date. Always current guidelines from CLSI and/or EUCAST should be consulted.

References

- CLSI M100S. Performance Standards for Antimicrobial Susceptibility Testing. 32nd Edition, 2022
- EUCAST. Breakpoint tables for interpretation of MICs and zone diameters. Version 12.0, 2022. <http://www.eucast.org>.
- CLSI M07. Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That Grow Aerobically. 11th Edition, 2018.
- CLSI M11. Methods for Antimicrobial Susceptibility Testing of Anaerobic Bacteria. 9th Edition, 2018.

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MTS™ (MIC Test Strip)
European Patent



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