

MIC Test Strip Technical Sheet **HACEK**

Aggregatibacter spp., Cardiobacterium spp., Eikenella corrodens, and Kingella spp.

Specimen

Abscess, Blood, sterile sites (fluids and tissues).

Procedure

Troccuure						
Medium	Mueller Hinton + 1% Hemoglobin +1 % IsoVitalex or Haemophilus Test Agar, Ref. 10080 or Brucella Blood Agar, Ref. 10245					
	or Mueller Hinton Fastidious Agar (Horse blood 5% + 20 mg/L β-NAD), Ref. 10132					
Inoculum	Suspension in Mueller Hinton Broth (Ref. 24107) to 1 McFarland (Ref. 80405).					
Incubation	$35 \pm 2^{\circ}\text{C}/5\%\text{CO}_2/24-72 \text{ h}.$					
Evaluating the results	Bactericidal drugs: interpret the M.I.C. at complete growth inhibition including microcolonies, hazes and isolated colonies. Bacteriostatic drugs: interpret the M.I.C. at 80% inhibition when trailing is seen.					

		Quality Control (MIC μg/mL)		CLSI INTERPRETATION MIC Criteria (µg/mL)			EUCAST INTERPRETATION MIC Criteria (µg/mL)		Example of ANTIBIOGRAM	
			H. influenzae ATCC® 49766	S	1	R	S	R	140 mm petri dish	
AMP	AMPICILLIN	2-8	0.06-0.25	≤1	2	≥4				
	Kingella kingae						≤0.06	>0.06		
CRO	CEFTRIAXONE	0.06-0.25	0.002-0.008	≤2	-	-			✓	
	Kingella kingae						≤0.06	>0.06		
	IMIPENEM	-	0.25-1						✓	
	Aggregatibacter spp.			≤4	8	≥16				
	All other species			≤0.5	1	≥2				
LEV	LEVOFLOXACIN	0.008-0.03	0.008-0.03	≤2	4	≥8			✓	
	Kingella kingae						≤0.125	>0.125		
RD	RIFAMPICIN	0.25-1	0.25-1	≤1	2	≥4				
	Kingella kingae						≤0.5	>0.5		
SXT	TRIMETHOPRIM- SULFAMETHOXAZOLE (1/19)	0.03-0.25	0.016-0.06	≤0.5	1-2	≥4			✓	
	Kingella kingae						≤0.25	>0.25		

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

Note: For combination agents, MIC values are expressed as the concentration of the first component of the combination.

Disclaimer: The table is 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 Also reported interpretive criteria and QC MIC ranges might be out of date.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

- 1. CLSI M100. Performance Standards for Antimicrobial Susceptibility Testing. 31st Edition, 2021.
- 2. EUCAST. Breakpoint tables for interpretation of MICs and zone diameters. Version 11.0, 2021.
- 3. Routine and extended internal quality control for MIC determination and disk diffusion as recommended by EUCAST. Version 11.0, 2021.
- 4. CLSI M07. Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That Grow Aerobically. 11th Edition, 2018.
- 5. CLSI M45. Methods for Antimicrobial Dilutions and Disk Susceptibility Testing of Infrequently Isolated or Fastidious Bacteria; 3rd Edition, 2016.

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