

Table 31. Vancomycin Agar Screen for *Staphylococcus aureus* and *Enterococcus* spp.

Screen Test	Vancomycin MIC ≥ 8 µg/mL	
Test method	Agar dilution	Agar dilution
Organism group	<i>S. aureus</i>	<i>Enterococcus</i> spp.
Medium	BHI agar	BHI ^a agar
Antimicrobial concentration	6 µg/mL vancomycin	6 µg/mL vancomycin
Inoculum	Colony suspension to obtain 0.5 McFarland turbidity Preferably, using a micropipette, spot a 10-µL drop onto agar surface. Alternatively, using a swab dipped in the suspension and the excess liquid expressed, spot an area 10-15 mm in diameter or streak a portion of the plate.	1-10 µL of a 0.5 McFarland suspension spotted onto agar surface. Alternatively, using a swab dipped in the suspension and the excess liquid expressed, spot an area 10-15 mm in diameter or streak a portion of the plate.
Incubation conditions	35°C ± 2°C; ambient air	35°C ± 2°C; ambient air
Incubation length	24 h	24 h
Results	Examine carefully with transmitted light for > 1 colony or light film of growth. > 1 colony = presumptive reduced susceptibility to vancomycin	> 1 colony = presumptive vancomycin resistance
Additional testing and reporting	Perform a vancomycin MIC using a validated MIC method to determine vancomycin MICs on <i>S. aureus</i> that grow on BHI–vancomycin screening agar. Testing on BHI–vancomycin screening agar does not reliably detect all vancomycin-intermediate <i>S. aureus</i> strains. Some strains for which the vancomycin MICs are 4 µg/mL will fail to grow.	Perform vancomycin MIC on <i>Enterococcus</i> spp. that grow on BHI–vancomycin screening agar and test for motility and pigment production to distinguish species with acquired resistance (eg, <i>vanA</i> and <i>vanB</i>) from those with intrinsic, intermediate-level resistance to vancomycin (eg, <i>vanC</i>), such as <i>E. gallinarum</i> and <i>E. casseliflavus</i> , which often grow on the vancomycin screen plate. In contrast to other enterococci, <i>E. casseliflavus</i> and <i>E. gallinarum</i> with vancomycin MICs of 8-16 µg/mL (intermediate) differ from VRE for infection prevention purposes.
QC recommendations – routine ^b	<i>E. faecalis</i> ATCC ^{®c} 29212 – susceptible	<i>E. faecalis</i> ATCC [®] 29212 – susceptible
QC recommendations – lot/shipment ^d	<i>E. faecalis</i> ATCC [®] 51299 – resistant	<i>E. faecalis</i> ATCC [®] 51299 – resistant

Abbreviations: ATCC[®], American Type Culture Collection; BHI, brain heart infusion; h, hour(s); IQCP, individualized quality control plan; MIC, minimal inhibitory concentration; QC, quality control; VRE, vancomycin-resistant enterococci.

Table 3I. (Continued)**Footnotes**

- a. Even though not as widely available, dextrose phosphate agar and broth have been shown in limited testing to perform comparably with BHI media.
- b. QC recommendations – routine
Test negative (susceptible) QC strain:
 - With each new lot/shipment of testing materials
 - Daily if the test is performed less than once per week and/or an IQCP justifying less frequent QC has not been developed
 - Less frequent than daily if the test is performed at least once per week and an IQCP has been developed
- c. ATCC® is a registered trademark of the American Type Culture Collection.
- d. QC recommendations – lot/shipment
Test positive (resistant) QC strain at minimum with each new lot/shipment of testing materials.