

References

1. The British Society for Antimicrobial Chemotherapy website News. 24 April 2007(www.bsac.org.uk)
2. The European Committee on Antimicrobial Susceptibility Testing (EUCAST) Steering Committee (2006). EUCAST technical note on daptomycin. Clin Microbiol Infect; 2006; 12:599-601.

Contact points

Microbiology Department
0121 507 4228 or 5693

Mailing address
Microbiology Department
City Hospital
Dudley Road
Birmingham
B18 7QH

Fax
0121 507 5521



Daptomycin MIC determinations on MRSA isolated from patients by a gradient method of testing (Etest)



 CPA Accredited Laboratory

Sandwell and West Birmingham Hospitals 
NHS Trust

A Teaching Trust of The University of Birmingham
Incorporating City, Sandwell and Rowley Regis Hospitals

© Sandwell and West Birmingham Hospitals NHS Trust



Sending samples for analysis

Send cultures of MRSA from endocarditis patients on agar slopes or transport swabs, together with relevant clinical details. Please package the specimens following current postal regulations and clearly label with the address on the reverse of this leaflet.

Inform the laboratory that an organism has been sent for testing.

Reference MIC BPs used to interpret susceptibility¹

MIC breakpoint (mg/L)		
R >	I	S ≤
1	-	1

Daptomycin MIC determination

Daptomycin activity in vitro is markedly affected by the concentration of calcium ions and there are unresolved questions

about how daptomycin susceptibility should be tested in routine clinical laboratories. Disc diffusion tests are unreliable and EUCAST recommends that the MIC must be determined to allow susceptibility categorization.²

Etest (AB Biodisk) is a gradient test that is a practical alternative to conventional agar MIC methods. For daptomycin testing the Etest strip is provided overlaid with a constant level of calcium and the testing medium will be Mueller Hinton agar that has a consistent inherent level of calcium (25-35 µg/mL).

Clinical use of daptomycin

Daptomycin is a new cyclic lipopeptide antibiotic with rapid bactericidal activity against *Staphylococcus aureus* including MRSA, and has recently been shown to be effective in the treatment of MRSA bacteraemia and endocarditis. Despite this information, the precise role of daptomycin in the treatment of MRSA

bacteraemia and endocarditis remains unclear.

A contributing factor may be the lack of availability of a standardised method for disc susceptibility testing for daptomycin.

Microbiologists require a method of daptomycin susceptibility testing in which they can be confident of predicting the clinical outcome when treating serious infections.