



## Recognition of *Candida albicans* Als3 by the germ tube-specific monoclonal antibody 3D9.3

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Titre	Recognition of <i>Candida albicans</i> Als3 by the germ tube-specific monoclonal antibody 3D9.3
Type de publication	Article de revue
Auteur	Beucher, Bertrand [1], Marot, Agnès [2], Nail-Billaud, Sandrine [3], Oh, Soon-Hwan [4], Hoyer, Lois L [5], Robert, Raymond [6]
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Mots-clés	adhesion [7], Als3 [8], <i>candida albicans</i> [9], cell wall protein [10], germ tube [11], monoclonal antibody [12]
Résumé en anglais	<p>Monoclonal antibody 3D9.3 (MAb 3D9.3) reacts with the surface of <i>Candida albicans</i> germ tubes and recognizes a protein epitope. We used a two-step chromatography procedure to purify and identify the antigen (3D9) from <i>C. albicans</i> strain 66396 germ tubes. MAb 3D9.3 recognized two intense protein bands at 140 and 180 kDa. A comparative analysis between theoretical and experimental mass spectrum peaks showed that both bands corresponded to Als3. This conclusion was supported by lack of reactivity between MAb 3D9.3 and an als3Δ/als3Δ mutant strain, and the fact that an immunoglobulin preparation enriched for Als3 specificity recognized the purified 3D9 antigen. PCR demonstrated that <i>C. albicans</i> strain 66396 has two different-sized ALS3 alleles that correspond to the two purified protein bands. Strain- and species-specificity of the 3D9 epitope were studied with various <i>C. albicans</i> strains and <i>Candida</i> species, such as closely related <i>Candida dubliniensis</i>. The 3D9 epitope was detected only in <i>C. albicans</i>, demonstrating the utility of MAb 3D9.3 for differentiation between <i>C. albicans</i> and <i>C. dubliniensis</i>. Adhesion assays demonstrated that MAb 3D9.3 blocks adhesion of <i>C. albicans</i> germ tubes to human buccal epithelial cells and vascular endothelial cells.</p>
URL de la notice	<a href="http://okina.univ-angers.fr/publications/ua4877">http://okina.univ-angers.fr/publications/ua4877</a> [13]
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