

Investigating the Binding of Bh3i-1 Derivatives to Anti-Apoptotic Bcl-2 Proteins

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Candida albicans is a leading cause of superficial and life threatening fungal disease. The ability to grow as filamentous cells is an important virulence trait for this fungus. Thus, molecules that block filamentous growth may form the basis for a novel approach to controlling infections by *C. albicans*. We have characterized a small molecule called BH3I-1 that specifically inhibits filamentous growth, but not yeast-form growth. BH3I-1 is not likely to be a good candidate for an anti-fungal drug, as it targets human Bcl-2 proteins and has the potential to induce apoptosis in human cells. The goal of our project is to identify structural derivatives of BH3I-1 that retain anti-fungal activity, but not Bcl-2 binding activity.