

Screening for Hit Identification against Mycobacterium abscessus

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Abstract : Mycobacterium abscessus is a rapidly growing life-threatening mycobacterium with multiple drug-resistance mechanisms. In this study, we screened the library to identify active molecules targeting Mycobacterium abscessus using resazurin live/dead assays. In this screening assay, the Z-factor was 0.7, as an indication of the statistical confidence of the assay. A cut-off of 80% growth inhibition in the screening resulted in the identification of four different compounds at a single concentration (20 μ M). Dose-response curves identified three different hit candidates, which generated good inhibitory curves. All hit candidates were expected to have different molecular targets. Thus, we found that compound X, identified, may be a promising candidate in the M. abscessus drug discovery pipeline.

Keywords : Mycobacterium abscessus, antibiotics, drug discovery, emerging Pathogen

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