

## PURIFICATION AND ACTIVITY OF GLUCANASE OF *PARACOCCIDIODES BRASILIENSIS*

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**Introduction:** Paracoccidioidomycosis, caused by *Paracoccidioides brasiliensis*, is an important human mycosis. The fungus shows a thermal dimorphism, growing as mycelium at 22°C and yeast at 37°C. Infection typically occurs by inhalation of fungal propagules, followed by transition to the parasitic yeast phase. Enzymes involved in the cell wall metabolism, as chitinases and glucanases, have been associated to the pathogenicity and virulence. In this way, these enzymes are interesting targets to the rational design of antifungal agents. The objectives of this work are isolate and evaluate activity of the  $\beta$ -1,3-glucanase from *P. brasiliensis*. **Results:** The presence of  $\beta$ -1,3-glucanase in the cell wall, intracellular and extra cellular medium from yeast and mycelium form was evaluated. The enzymatic activity was carried through measuring the amount of free reducing sugar after the incubation with laminarine. Few samples of the culture medium had shown a significant result, however this was not observed for samples of the intracellular portion and cell wall. Tests of temperature showed that the optimal temperature for the activity of the  $\beta$ -1,3-glucanase was around 40°C. **Conclusion:** The activity of  $\beta$ -1,3-glucanase was higher in extracts of cell wall and possibly the enzyme is not secreted. It also was present in the intracellular portion, and presented greater activity in the mycelium form, mainly in the cell wall extract.