

# NEW MECHANICAL DISRUPTION METHOD FOR EXTRACTION OF WHOLE CELL PROTEIN FROM *CANDIDA ALBICANS*

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**Abstract.** Cell disruption or lysis is a crucial step to obtain cellular components for various biological studies. We subjected different concentrations of *Candida albicans* to 5, 10, 15 and 20 cycles of disruption. The degree of cell lysis was observed using light microscopy and the yields obtained were measured and analysed. The optimum extraction with  $1 \times 10^{10}$  yeast cells/ml was achieved after 5 cycles of disruption with 1.0 mm diameter glass beads at 5,000 rpm. Approximately 80% of the cells were lysed and the protein yield was 6,000  $\mu\text{g/ml}$ . SDS-PAGE analysis revealed approximately 25 distinct protein bands with molecular weights ranging from 8 kDa to 220 kDa. We conclude that this mechanical disruption of fungal cells is a rapid, efficient and inexpensive technique for extracting whole cell proteins from yeast cells.

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