

AFFINITY PURIFICATION OF Cdr1p, A MAJOR MULTIDRUG EFFLUX PROTEIN OF *Candida albicans*

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Candida drug resistance protein (Cdr1p), an ATP-dependent drug efflux pump, confers multidrug resistance in immunocompromised and debilitated patients. High level expression of this protein plays an important role in antifungal resistance of *Candida albicans* infections especially against azoles. Molecular basis of structure and function of Cdr1p as an efflux pump for azoles is not well known. There is a great need to obtain highly purified and active Cdr1p protein for detailed structural and functional studies. In our project we have developed a purification protocol of polyhistidine-tagged Cdr1p using affinity chromatography on Ni-NTA beads. High level of expression of *CDR1* placed under the control of *Saccharomyces cerevisiae* *PDR5* promoter was achieved with hyperactivation of *PDR1* transcriptional regulator in a *Saccharomyces cerevisiae* strain. The detergent solubilised protein exhibited a stable ATPase activity. In this study we have also shown that Cdr1p displayed oligomycin-sensitive ATPase activity which like in case of other ABC drug transporters is strongly influenced by lipid environment.