

PLANT EXTRACTS USED IN BRAZILIAN TRADITIONAL MEDICINE:
EFFECT ON PDR5P ATPASE ACTIVITY FROM *SACCHAROMYCES*
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Since the discovery of the phenomenon called multidrug resistance (MDR) in mammalian cells and afterward in microorganisms, considerable research effort has attempted to provide a better understanding of multiple drug efflux. The MDR refers to simultaneous resistance to several structurally and functionally different cytotoxic compounds owing to their increased efflux from the cells by transporter proteins from the ABC super family. This defense results in decreased efficacy of antimicrobial therapy. In *Saccharomyces cerevisiae*, ABC protein family comprises several members of the Pleiotropic Drug Resistance (PDR) subfamily, like Pdr5p, which confers resistance to many compounds like antifungals and anticancer drugs and is homologue to other transporters from pathogenic fungi. Plant extracts have been known since antiquity to possess notable biological activity, including antibacterial and antifungal properties, therefore, they can be an interesting alternative in the search for new compounds able to inhibit ABC transporters related with drug efflux. In this study we have evaluated the effects of 88 methanolic extract of plants on Pdr5p ATPase activity. All extracts were tested on fixed concentration of 200 µg/ml. For further analysis, nine extracts were selected due to their best inhibition of the ATPase activity (95%). Other experiments are being done to identify active compounds and better characterize the inhibition.