BIOTRANSFORMATION OF PRAZIQUANTEL BY CYTOCHROME C FROM *SACCHAROMYCES CEREVISIAE*

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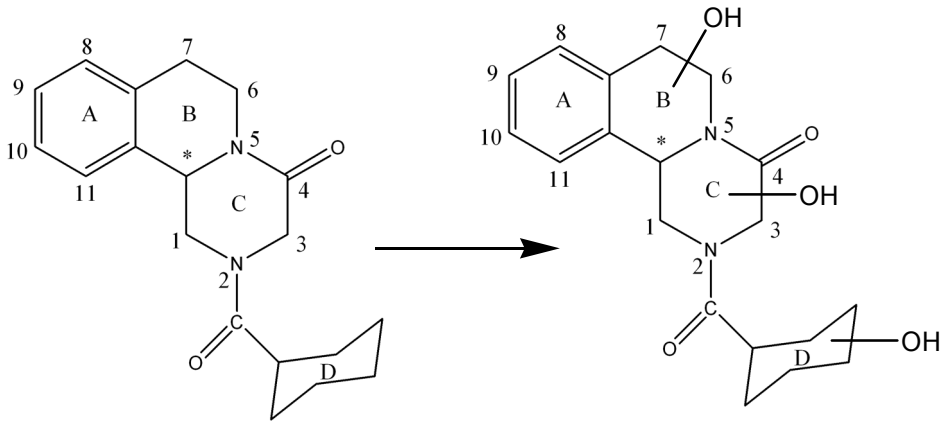
Praziquantel (PZQ) is a drug which is used by choice for schistosomiasis treatment. Currently it is used in malaria treatment. The usefulness of PZQ as antimalarial drug is important because of rapid development of resistance to usually applied drugs. PZQ undergoes extensive metabolism in human body, mainly in liver by two cytochrome P-450 isoenzymes 2B1 and 3A [1]. As the result of these biotransformation numerous mono- and dihydroxylated derivatives in B, C and D ring are formed. One metabolite has been fully identified and described, it is *cis*- and *trans*- 4-hydroxypraziquantel [2]. Up to now were created many different *in vitro* and *in vivo* models of PZQ biotransformations[3].



In our research we have created *in vitro* model of PZQ biotransformation by using of cytochrome c from *Saccharomyces cerevisiae*. This enzyme acts similarly to cytochrome P-450 [4]. We performed three types of experiments. In the first type of experiment we used only cytochrome c, in the second cytochrome c with H_2O_2 and in the third cytochrome c with NADP. All experiments were performed in two types of buffer: pH=7,0 and pH=6,0. The reactions were monitored by used of HPLC

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