

Detection of Cytochrome P450-2A6, -3A5 and -4B1 with Real-Time Polymerase Chain Reaction in Prostate Tissue

Sevil Zencir^{a,e}, Davut Alptekin^b, Medih Celiktaş^c, Pakize Canturk^d, Deniz Colak^c, Vildan Caner^a, Umit H. Luleyap^b, and Zeki Topcu^{d,*}

^a Department of Medical Biology, Faculty of Medicine, Pamukkale University, Denizli, Turkey

^b Department of Medical Biology, School of Medicine, Cukurova University, Adana, Turkey

^c Department of Radiodiagnostics, School of Medicine, Cukurova University, Adana, Turkey

^d Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Ege University, Izmir, Turkey. Fax: (90)23 2388 52 58. E-mail: zeki.topcu@ege.edu.tr

^e Present address: Department of Biochemistry, Faculty of Science, Ege University, Izmir, 35100, Turkey

* Author for correspondence and reprint requests

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Cytochrome P450 (CYP) is a heme-containing enzyme superfamily metabolizing a wide variety of xenobiotics, including drugs and carcinogens. The majority of *CYP* genes are expressed in the liver, however, some *CYP* isoforms are also reported for a number of extra hepatic tissues. We analyzed *Cytochrome P450-2A6*, *-3A5* and *-4B1* mRNAs using real-time reverse-transcriptase polymerase chain reaction (RT-PCR) in a total of 21 homogenized prostate tissues with or without malignancy. We detected a consistent expression of *CYP2A6* and *CYP3A5* in all, and of *CYP4B1* in some (11/21) of the samples at mRNA level. Neither the histopathological status nor the smoking habit of the individuals affected *CYP4B1* expression. Our results reflect possible roles for these particular CYPs in therapy and protection of prostate tissue.

Key words: Prostate, Cytochrome P450 Expression