

**P19**      *CYP4501A1* gene expression by TCDD in Hepa I cells.

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Effects of TCDD and flavonoids on ethoxyresorufin deethylase in Hepa I cells and MCF-7 human breast cancer cells were examined. TCDD treatment have resulted in the stimulation of ethoxyresorufin deethylase activity based on fluorometry in Hepa I in dose and time dependent manner. 0.1 nM TCDD showed maximal stimulation of ethoxyresorufin deethylase activity and 24 hour treatment also showed maximal stimulation of ethoxyresorufin deethylase activity. In MCF-7 human breast cancer cells, untreated cells showed high basal level of ethoxyresorufin deethylase activity. TCDD treatment to MCF-7 cells resulted minor stimulation of ethoxyresorufin deethylase activity compared to that in Hepa I cells. Various chemicals were tested for ethoxyresorufin deethylase activity in both cell lines. Flavonoids, such as quercetin showed an inhibition of ethoxyresorufin deethylase activity that is stimulated with TCDD or 3-Methylcholanthrene. Estrogen and estrogen metabolites such as 16 $\alpha$ -estriol also affects the ethoxyresorufin deethylase activity in MCF-7 cells.