

Study Number: S0939
Test Type: Human Liver Microsome

PA49: Summary of Cytochrome Activity
Test Compound: Z-guggulsterone
CAS Number: 39025-23-5

Date Report Requested: 11/26/2019
Time Report Requested: 09:53:42
Lab: Research Triangle Institute

C Number: S0939
Study Gender: NA
PWG Approval Date See web page for date of PWG Approval

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	Treatment Groups (uM)				
	0	0.3	1	10	20 uM Ver
Cytochrome P450 1A2 (acetaminophen) (nmol/min/mg protein)	0.524 ± 0.041 (3)	0.505 ± 0.027 (3)	0.521 ± 0.012 (3)	0.496 ± 0.020 (3)	NR
Cytochrome P450 2A6 (7- OH Coumarin) (nmol/min/mg protein)	0.589 ± 0.058 (3) **	0.475 ± 0.012 (3) *	0.454 ± 0.007 (3) *	0.439 ± 0.019 (3) *	NR
Cytochrome P450 2C8 (6a-OH-paclitaxel) (nmol/min/mg protein)	0.101 ± 0.009 (2)	0.086 ± 0.028 (3)	0.091 ± 0.026 (3)	0.118 ± 0.051 (2)	NR
Cytochrome P450 2C9 (4- OH tolbutamide) (nmol/min/mg protein)	0.085 ± 0.001 (3) **	0.073 ± 0.001 (3) *	0.056 ± 0.000 (3) **	0.057 ± 0.002 (2) *	NR
Cytochrome P450 2C19 (HO-methenytol) (pmol/min/mg protein)	5.889 ± 0.382 (3) *	6.184 ± 0.203 (2)	5.052 ± 0.374 (2)	4.351 ± 0.104 (3)	NR
Cytochrome P450 2D6 (Dextrorphan) (nmol/min/mg protein)	0.079 ± 0.004 (3)	0.088 ± 0.004 (3)	0.075 ± 0.015 (3)	0.082 ± 0.006 (3)	NR
Cytochrome P450 2E1 (4- nitrocatechol) (nmol/min/mg protein)	1.059 ± 0.031 (3)	NR	NR	1.097 ± 0.139 (3)	NR
Cytochrome P450 3A4 (1- OH Midazolam) (nmol/min/mg protein)	0.134 ± 0.017 (3)	0.145 ± 0.021 (3)	0.095 ± 0.048 (3)	0.141 ± 0.028 (3)	NR
Cytochrome P450 3A4 (6b-OH Testosterone) (nmol/min/mg protein)	2.427 ± 0.205 (3)	2.822 ± 0.212 (3)	2.628 ± 0.113 (3)	2.337 ± 0.146 (3)	NR
Cytochrome P450 4a (12- OH Luic Acid) (nmol/min/mg protein)	0.029 ± 0.002 (3)	0.029 ± 0.007 (3)	0.023 ± 0.005 (3)	0.021 ± 0.002 (3)	NR
P-glycoprotein ATPase Activity (nmol/min/mg protein)	0.807 ± 0.426 (6) **	5.630 (1)	16.350 ± 1.520 (2) *	45.020 ± 27.330 (2) *	44.053 ± 1.109 (6) **

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LEGEND

Data are displayed as mean \pm SEM (N) unless otherwise noted.

Statistical analysis performed by Jonckheere (trend) and Shirley or Dunn (pairwise) tests.

Statistical significance for a treatment group indicates a significant pairwise test compared to the vehicle control group

Statistical significance for the control group indicates a significant trend test

Statistical analysis for the positive control group compared to the vehicle control group was performed using the Wilcoxon test.

* Statistically significant at $P \leq 0.05$

** Statistically significant at $P \leq 0.01$

Cytochrome P450 2E1 was not measured for the 0.3 and 1 μ M dose groups. Positive controls were only run for the ATPase activity assay.

The 0.3 μ M results for P-glycoprotein ATPase Activity was not include in the statistical analysis since there was only one value in that group.

Ver = Verpamil

NR not recorded

**** END OF REPORT ****