

Study Number: C05052-01

Test Type: TOX

Route: Dosing in Water

Species/Strain: Rat/Harlan Sprague Dawley

C Number:

Study Gender:

PWG Approval Date

PA41: Clinical Chemistry Summary

Test Compound: N-Butylpyridinium Chloride

C05052-01

Both

See web page for date of PWG Approval

Date Report Requested: 04/21/2020

Time Report Requested: 14:10:26

Lab: NTP

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Male

	Phase Day	Treatment Groups (mg/mL)			
		0	0.3	1	3
Urea Nitrogen (mg/dL)	SD 92	15.9 ± 0.4 (10) **	17.0 ± 0.6 (10)	17.8 ± 0.4 (10) **	18.3 ± 0.4 (9) **
Percent of Control			106.9	111.9	115.3
Creatinine (mg/dL)	SD 92	0.76 ± 0.02 (10)	0.76 ± 0.02 (10)	0.70 ± 0.00 (10) *	0.76 ± 0.02 (9)
Percent of Control			100.0	92.1	99.4
Glucose (mg/dL)	SD 92	154.2 ± 8.1 (10)	162.0 ± 12.0 (10)	151.9 ± 12.0 (10)	136.9 ± 10.2 (9)
Percent of Control			105.1	98.5	88.8
Total Protein (g/dL)	SD 92	6.73 ± 0.10 (10)	6.83 ± 0.07 (10)	6.74 ± 0.07 (10)	6.73 ± 0.10 (9)
Percent of Control			101.5	100.1	100.0
Globulin (g/dL)	SD 92	2.42 ± 0.05 (10)	2.48 ± 0.04 (10)	2.46 ± 0.05 (10)	2.46 ± 0.07 (9)
Percent of Control			102.5	101.7	101.5
A/G Ratio	SD 92	1.79 ± 0.03 (10)	1.76 ± 0.03 (10)	1.75 ± 0.04 (10)	1.75 ± 0.04 (9)
Percent of Control			98.4	97.8	98.0
Albumin (g/dL)	SD 92	4.31 ± 0.06 (10)	4.35 ± 0.05 (10)	4.28 ± 0.04 (10)	4.28 ± 0.04 (9)
Percent of Control			100.9	99.3	99.3
Cholesterol (mg/dL)	SD 92	141.6 ± 4.4 (10)	131.4 ± 5.5 (10)	131.8 ± 4.6 (10)	132.7 ± 6.4 (9)
Percent of Control			92.8	93.1	93.7
Triglyceride (mg/dL)	SD 92	92.3 ± 6.7 (10)	95.4 ± 3.5 (10)	111.6 ± 11.3 (10)	91.8 ± 8.3 (9)
Percent of Control			103.4	120.9	99.4
Alanine Aminotransferase (IU/L)	SD 92	62.2 ± 3.5 (10)	69.8 ± 12.6 (10)	58.8 ± 3.2 (10)	59.7 ± 4.4 (9)
Percent of Control			112.2	94.5	95.9
Alkaline Phosphatase (IU/L)	SD 92	172.1 ± 10.7 (10)	179.2 ± 6.5 (10)	174.6 ± 7.5 (10)	192.1 ± 11.6 (9)
Percent of Control			104.1	101.5	111.6

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Male

	Phase Day	Treatment Groups (mg/mL)			
		0	0.3	1	3
Creatine Kinase (IU/L)	SD 92	273.8 ± 43.7 (10)	309.3 ± 56.3 (10)	192.2 ± 18.1 (10)	217.1 ± 35.1 (9)
Percent of Control			113.0	70.2	79.3
Sorbitol Dehydrogenase (IU/L)	SD 92	18.9 ± 1.8 (10)	27.0 ± 9.9 (10)	17.6 ± 2.2 (10)	20.4 ± 3.5 (9)
Percent of Control			142.9	93.1	108.2
Bile salt/acids (umol/L)	SD 92	23.6 ± 3.5 (10)	30.7 ± 4.7 (10)	24.6 ± 3.1 (10)	16.8 ± 2.4 (9)
Percent of Control			130.1	104.2	71.1

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Female

	Phase Day	Treatment Groups (mg/mL)			
		0	0.3	1	3
Urea Nitrogen (mg/dL)	SD 92	18.5 ± 0.5 (10)	17.9 ± 0.7 (10)	17.4 ± 0.5 (10)	19.4 ± 0.7 (10)
Percent of Control			96.8	94.1	104.9
Creatinine (mg/dL)	SD 92	0.81 ± 0.01 (10)	0.80 ± 0.00 (10)	0.81 ± 0.01 (10)	0.83 ± 0.02 (10)
Percent of Control			98.8	100.0	102.5
Glucose (mg/dL)	SD 92	129.5 ± 5.7 (10) *	124.8 ± 3.5 (10)	120.7 ± 5.9 (10)	116.0 ± 4.7 (10)
Percent of Control			96.4	93.2	89.6
Total Protein (g/dL)	SD 92	6.90 ± 0.09 (10)	6.91 ± 0.11 (10)	6.85 ± 0.08 (10)	6.81 ± 0.14 (10)
Percent of Control			100.1	99.3	98.7
Globulin (g/dL)	SD 92	2.14 ± 0.05 (10)	2.13 ± 0.11 (10)	1.95 ± 0.06 (10)	2.02 ± 0.08 (10)
Percent of Control			99.5	91.1	94.4
A/G Ratio	SD 92	2.24 ± 0.06 (10)	2.29 ± 0.11 (10)	2.53 ± 0.09 (10)	2.40 ± 0.10 (10)
Percent of Control			102.5	113.3	107.5
Albumin (g/dL)	SD 92	4.76 ± 0.07 (10)	4.78 ± 0.07 (10)	4.90 ± 0.06 (10)	4.79 ± 0.09 (10)
Percent of Control			100.4	102.9	100.6
Cholesterol (mg/dL)	SD 92	116.3 ± 4.5 (10)	127.8 ± 8.3 (10)	121.8 ± 5.6 (10)	123.5 ± 2.8 (10)
Percent of Control			109.9	104.7	106.2
Triglyceride (mg/dL)	SD 92	80.7 ± 8.1 (10)	71.1 ± 6.3 (10)	72.1 ± 5.8 (10)	72.3 ± 6.9 (10)
Percent of Control			88.1	89.3	89.6
Alanine Aminotransferase (IU/L)	SD 92	47.3 ± 1.4 (10)	55.9 ± 4.4 (10)	49.1 ± 1.2 (10)	45.1 ± 2.8 (10)
Percent of Control			118.2	103.8	95.3
Alkaline Phosphatase (IU/L)	SD 92	143.5 ± 8.5 (10)	157.3 ± 7.8 (10)	147.6 ± 10.5 (10)	137.6 ± 7.2 (10)
Percent of Control			109.6	102.9	95.9

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	Phase Day	Treatment Groups (mg/mL)			
		0	0.3	1	3
Creatine Kinase (IU/L)	SD 92	203.9 ± 27.9 (10) *	185.3 ± 17.4 (10)	281.0 ± 49.8 (10)	281.9 ± 31.5 (10)
Percent of Control			90.9	137.8	138.3
Sorbitol Dehydrogenase (IU/L)	SD 92	15.1 ± 0.9 (10)	15.3 ± 1.2 (10)	15.0 ± 1.1 (10)	18.4 ± 1.1 (10)
Percent of Control			101.3	99.3	121.9
Bile salt/acids (umol/L)	SD 92	11.5 ± 2.1 (10)	22.6 ± 2.9 (10)	24.4 ± 6.1 (10)	19.5 ± 4.1 (10)
Percent of Control			196.5	212.2	169.6

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LEGEND

Values given as mean \pm SEM (N) with Percent of Control calculated by (dosed group mean / control group mean) x 100

SD – Study Day

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

Statistical significance for the control group indicates a significant trend test

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

* Statistically significant at $P \leq 0.05$

** Statistically significant at $P \leq 0.01$

**** END OF REPORT ****