

Study Number: C98090C-01
Test Type: TOX
Route: Oral Gavage
Species/Strain: Rat/Sprague Dawley

PA41: Clinical Chemistry Summary
Test Compound: 2,2',4,4'-Tetrabromodiphenyl Ether
CAS Number: 5436-43-1

Date Report Requested: 04/08/2019
Time Report Requested: 11:28:06
Lab: Battelle

C Number: C98090C-01
Study Gender: Male
PWG Approval Date See web page for date of PWG Approval

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	Phase Day	Treatment Groups (mg/kg)				
		0	0.0485	0.485	4.85	48.5
Urea Nitrogen (mg/dL)	SD 5	12.0 ± 1.2 (6)	11.8 ± 0.8 (5)	11.0 ± 0.7 (4)	11.4 ± 0.4 (5)	10.0 ± 1.0 (6)
Percent of Control			98.3	91.7	95.0	83.3
Creatinine (mg/dL)	SD 5	0.38 ± 0.02 (6)	0.36 ± 0.02 (5)	0.35 ± 0.03 (4)	0.38 ± 0.02 (5)	0.38 ± 0.02 (6)
Percent of Control			93.91	91.30	99.13	100.00
Glucose (mg/dL)	SD 5	233.3 ± 15.7 (6)	176.2 ± 40.0 (5)	236.8 ± 10.8 (5)	240.7 ± 12.1 (6)	229.5 ± 14.6 (6)
Percent of Control			75.5	101.5	103.1	98.4
Sodium (mmol/L)	SD 5	149.2 ± 0.7 (6)	148.3 ± 0.3 (6)	148.5 ± 0.5 (6)	149.2 ± 0.3 (6)	149.5 ± 0.6 (6)
Percent of Control			99.4	99.6	100.0	100.2
Potassium (mmol/L)	SD 5	7.5 ± 0.3 (6)	7.0 ± 0.2 (6)	6.9 ± 0.3 (6)	7.1 ± 0.3 (6)	7.4 ± 0.3 (6)
Percent of Control			92.9	91.8	94.0	98.0
Chloride (mmol/L)	SD 5	101.2 ± 0.7 (6)	100.2 ± 0.7 (6)	101.8 ± 0.7 (6)	100.8 ± 0.3 (6)	101.5 ± 0.6 (6)
Percent of Control			99.0	100.7	99.7	100.3
Total Protein (g/dL)	SD 5	5.93 ± 0.10 (6)	5.75 ± 0.11 (6)	5.84 ± 0.18 (5)	5.92 ± 0.07 (6)	5.72 ± 0.09 (6)
Percent of Control			96.91	98.43	99.72	96.35
Globulin (g/dL)	SD 5	1.63 ± 0.08 (6) **	1.50 ± 0.08 (6)	1.62 ± 0.12 (5)	1.58 ± 0.09 (5)	1.73 ± 0.06 (6)
Percent of Control			91.84	99.18	96.73	106.12
A/G Ratio	SD 5	2.66 ± 0.13 (6) **	2.87 ± 0.15 (6)	2.65 ± 0.15 (5)	2.76 ± 0.17 (5)	2.31 ± 0.07 (6) *
Percent of Control			107.90	99.60	103.70	86.83
Albumin (g/dL)	SD 5	4.30 ± 0.09 (6)	4.25 ± 0.07 (6)	4.22 ± 0.07 (6)	4.30 ± 0.05 (5)	3.98 ± 0.05 (6) *
Percent of Control			98.84	98.06	100.00	92.64
Cholesterol (mg/dL)	SD 5	137.7 ± 2.8 (6) **	123.6 ± 3.3 (5)	143.2 ± 8.8 (5)	134.3 ± 5.0 (6)	152.7 ± 10.1 (6)
Percent of Control			89.8	104.0	97.6	110.9

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	Phase Day	Treatment Groups (mg/kg)				
		0	0.0485	0.485	4.85	48.5
Triglyceride (mg/dL)	SD 5	78.8 ± 6.8 (6)	58.7 ± 12.2 (6)	85.8 ± 8.4 (5)	52.3 ± 5.5 (6)	98.5 ± 17.6 (6)
Percent of Control			74.4	108.8	66.4	124.9
Alanine Aminotransferase (IU/L)	SD 5	55.0 ± 1.3 (6) **	60.0 ± 4.4 (6)	51.2 ± 2.2 (6)	59.8 ± 3.5 (5)	65.5 ± 2.7 (6)
Percent of Control			109.1	93.0	108.7	119.1
Creatine Kinase (IU/L)	SD 5	207.3 ± 8.4 (6)	218.2 ± 10.8 (5)	183.7 ± 12.6 (6)	209.0 ± 17.3 (6)	231.0 ± 18.1 (6)
Percent of Control			105.2	88.6	100.8	111.4
Sorbitol Dehydrogenase (IU/L)	SD 5	6.5 ± 2.1 (6)	5.4 ± 3.0 (5)	-0.6 ± 4.4 (4)	5.5 ± 1.5 (6)	6.6 ± 2.3 (6)
Percent of Control			83.3	-9.6	84.1	102.1
Bile salt/acids (umol/L)	SD 5	37.3 ± 8.4 (6) **	35.2 ± 9.3 (5)	33.6 ± 4.3 (5)	38.2 ± 9.4 (6)	15.7 ± 2.6 (6) *
Percent of Control			94.3	90.0	102.2	42.0

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	Phase Day	Treatment Groups 485
Urea Nitrogen (mg/dL)	SD 5	11.7 ± 1.0 (6)
Percent of Control		97.2
Creatinine (mg/dL)	SD 5	0.38 ± 0.03 (6)
Percent of Control		100.00
Glucose (mg/dL)	SD 5	222.8 ± 18.8 (6)
Percent of Control		95.5
Sodium (mmol/L)	SD 5	148.8 ± 1.0 (6)
Percent of Control		99.8
Potassium (mmol/L)	SD 5	7.1 ± 0.3 (6)
Percent of Control		94.9
Chloride (mmol/L)	SD 5	101.8 ± 1.0 (6)
Percent of Control		100.7
Total Protein (g/dL)	SD 5	6.23 ± 0.08 (6)
Percent of Control		105.06
Globulin (g/dL)	SD 5	2.00 ± 0.06 (6) *
Percent of Control		122.45
A/G Ratio	SD 5	2.13 ± 0.08 (6) *
Percent of Control		79.95
Albumin (g/dL)	SD 5	4.23 ± 0.07 (6)
Percent of Control		98.45
Cholesterol (mg/dL)	SD 5	213.0 ± 7.8 (6) **
Percent of Control		154.7

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		485
Triglyceride (mg/dL)	SD 5	119.0 ± 15.1 (6)
Percent of Control		151.0
Alanine Aminotransferase (IU/L)	SD 5	75.2 ± 4.9 (6) **
Percent of Control		136.7
Creatine Kinase (IU/L)	SD 5	203.2 ± 9.7 (6)
Percent of Control		98.0
Sorbitol Dehydrogenase (IU/L)	SD 5	15.4 ± 5.0 (6)
Percent of Control		237.0
Bile salt/acids (umol/L)	SD 5	9.0 ± 1.6 (6) **
Percent of Control		24.1

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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 (unless otherwise noted).

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 $P \leq 0.01$

One value each for A/G Ratio, Creatine Kinase, Cholesterol, Globulin, Glucose, Total Protein and Triglycerides in the 0.0485 mg/kg group were excluded.

Two values each for Bile salts/acids, Creatinine, and Urea Nitrogen in the 0.0485 group were excluded. Four values for Sorbitol Dehydrogenase in the 0.0485 group were excluded. One value each for Creatinine, Sorbitol Dehydrogenase, and Urea Nitrogen in the 0.485 group were excluded.

One value each for A/G Ratio, Alanine Aminotransferase, Albumin, Creatinine, and Globulin in the 4.85 mg/kg group were excluded.

**** END OF REPORT ****