

Study Number: I07062

Test Type: TOX

Route: Whole-Body Inhalation

Species/Strain: Rat/Harlan Sprague Dawley

Study Number:

Study Sex:

PWG Approval Date:

Version:

Stat Version:

PA06: Organ Weights Summary

Test Compound: 1020 Long Multiwalled Carbon Nanotube

CAS Number: L-MWNT-1020

I07062

Female

See web page for date of PWG Approval

v1.7.0

2023.02.27S

Date Report Requested: 12/27/2024

Time Report Requested: 11:06:32

Lab: Burleson Research Technologies

Study Number: I07062
Test Type: TOX
Route: Whole-Body Inhalation
Species/Strain: Rat/Harlan Sprague Dawley

PA06: Organ Weights Summary
Test Compound: 1020 Long Multiwalled Carbon Nanotube
CAS Number: L-MWNT-1020

Date Report Requested: 12/27/2024
Time Report Requested: 11:06:32
Lab: Burleson Research Technologies

Females: CTL																
		Treatment Groups (mg/m ³)														
		0			0.06			0.2			0.6			15 mg/kg CPS		
Terminal Body Wt. (g)		213.0	± 4.4	(12)	209.3	± 5.2	(12)	211.5	± 3.0	(12)	212.0	± 5.3	(12)	195.4	± 3.4	(10) **
Spleen																
Absolute (g)		0.621 ± 0.029 (12) *			0.564 ± 0.017 (12)			0.566 ± 0.023 (12)			0.526 ± 0.022 (12) *			0.311 ± 0.017 (10) **		
Relative (mg/g)		2.91 ± 0.11 (12) **			2.70 ± 0.05 (12)			2.68 ± 0.10 (12)			2.47 ± 0.06 (12) **			1.60 ± 0.09 (10) **		
Thymus																
Absolute (g)		0.311 ± 0.011 (12)			0.298 ± 0.018 (12)			0.301 ± 0.013 (12)			0.281 ± 0.015 (12)			0.071 ± 0.008 (10) **		
Relative (mg/g)		1.46 ± 0.05 (12)			1.41 ± 0.06 (12)			1.42 ± 0.06 (12)			1.32 ± 0.06 (12)			0.36 ± 0.04 (10) **		

Study Number: I07062

Test Type: TOX

Route: Whole-Body Inhalation

Species/Strain: Rat/Harlan Sprague Dawley

PA06: Organ Weights Summary

Test Compound: 1020 Long Multiwalled Carbon Nanotube

CAS Number: L-MWNT-1020

Date Report Requested: 12/27/2024

Time Report Requested: 11:06:32

Lab: Burleson Research Technologies

Females: Immunopath

	Treatment Groups (mg/m ³)														
	0			0.06			0.2			0.6			15 mg/kg CPS		
Terminal Body Wt. (g)	209.0	± 2.9	(12)	203.3	± 2.9	(12)	204.6	± 2.9	(12)	211.9	± 3.1	(12)	189.8	± 1.8	(10) **
R. Adrenal gland															
Absolute (g)	0.0355	± 0.0013	(12)	0.0350	± 0.0017	(12)	0.0363	± 0.0022	(12)	0.0366	± 0.0013	(12)	0.0362	± 0.0014	(10)
Relative (mg/g)	0.17	± 0.01	(12)	0.17	± 0.01	(12)	0.18	± 0.01	(12)	0.17	± 0.01	(12)	0.19	± 0.01	(10)
R. Kidney															
Absolute (g)	0.83	± 0.02	(12)	0.83	± 0.02	(12)	0.83	± 0.02	(12)	0.87	± 0.01	(12)	0.81	± 0.02	(10)
Relative (mg/g)	3.98	± 0.05	(12)	4.10	± 0.07	(12)	4.06	± 0.06	(12)	4.09	± 0.06	(12)	4.24	± 0.08	(10) *
Liver															
Absolute (g)	8.28	± 0.22	(12)	7.86	± 0.21	(12)	8.01	± 0.16	(12)	8.62	± 0.23	(12)	7.15	± 0.09	(10) **
Relative (mg/g)	39.57	± 0.71	(12)	38.65	± 0.71	(12)	39.16	± 0.47	(12)	40.63	± 0.71	(12)	37.67	± 0.49	(10) *
Lung															
Absolute (g)	2.18	± 0.07	(12)	2.18	± 0.09	(12)	2.16	± 0.05	(12)	2.25	± 0.06	(12)	2.07	± 0.06	(10)
Relative (mg/g)	10.42	± 0.35	(12)	10.73	± 0.41	(12)	10.58	± 0.19	(12)	10.64	± 0.23	(12)	10.89	± 0.32	(10)
Spleen															
Absolute (g)	0.569	± 0.012	(12)	0.535	± 0.022	(12)	0.550	± 0.016	(12)	0.568	± 0.026	(12)	0.349	± 0.012	(10) **
Relative (mg/g)	2.72	± 0.06	(12)	2.62	± 0.08	(12)	2.69	± 0.06	(12)	2.68	± 0.11	(12)	1.84	± 0.06	(10) **
Thymus															
Absolute (g)	0.335	± 0.018	(12)	0.309	± 0.020	(12)	0.323	± 0.015	(12)	0.346	± 0.017	(12)	0.125	± 0.017	(10) **
Relative (mg/g)	1.60	± 0.08	(12)	1.52	± 0.10	(12)	1.58	± 0.07	(12)	1.63	± 0.07	(12)	0.66	± 0.09	(10) **

Study Number: I07062
Test Type: TOX
Route: Whole-Body Inhalation
Species/Strain: Rat/Harlan Sprague Dawley

PA06: Organ Weights Summary
Test Compound: 1020 Long Multiwalled Carbon Nanotube
CAS Number: L-MWNT-1020

Date Report Requested: 12/27/2024
Time Report Requested: 11:06:32
Lab: Burleson Research Technologies

Females: Immunophenotyping																
		Treatment Groups (mg/m ³)														
		0			0.06			0.2			0.6			15 mg/kg CPS		
Terminal Body Wt. (g)		214.0	± 3.5	(12)	218.5	± 3.3	(12)	221.9	± 2.3	(12)	216.5	± 3.8	(12)	213.1	± 3.1	(10)
Spleen																
	Absolute (g)	0.529 ± 0.021 (12)			0.547 ± 0.027 (12)			0.531 ± 0.014 (12)			0.532 ± 0.021 (12)			0.352 ± 0.013 (10) **		
	Relative (mg/g)	2.47 ± 0.07 (12)			2.50 ± 0.11 (12)			2.40 ± 0.07 (12)			2.45 ± 0.08 (12)			1.66 ± 0.06 (10) **		
Thymus																
	Absolute (g)	0.261 ± 0.013 (12)			0.278 ± 0.014 (12)			0.271 ± 0.011 (12)			0.249 ± 0.013 (12)			0.127 ± 0.005 (10) **		
	Relative (mg/g)	1.22 ± 0.06 (12)			1.28 ± 0.08 (12)			1.22 ± 0.05 (12)			1.15 ± 0.06 (12)			0.60 ± 0.03 (10) **		

Study Number: I07062
Test Type: TOX
Route: Whole-Body Inhalation
Species/Strain: Rat/Harlan Sprague Dawley

PA06: Organ Weights Summary
Test Compound: 1020 Long Multiwalled Carbon Nanotube
CAS Number: L-MWNT-1020

Date Report Requested: 12/27/2024
Time Report Requested: 11:06:32
Lab: Burleson Research Technologies

Females: KLH																
		Treatment Groups (mg/m ³)														
		0			0.06			0.2			0.6			15 mg/kg CPS		
Terminal Body Wt. (g)		217.6	± 3.1	(12)	214.3	± 3.1	(12)	220.3	± 5.0	(12)	224.5	± 3.3	(12)	195.1	± 3.2	(10) **
Spleen																
Absolute (g)		0.526 ± 0.018 (12)			0.490 ± 0.015 (12)			0.565 ± 0.037 (12)			0.555 ± 0.019 (12)			0.266 ± 0.007 (10) **		
Relative (mg/g)		2.42 ± 0.09 (12)			2.29 ± 0.07 (12)			2.56 ± 0.14 (12)			2.47 ± 0.08 (12)			1.36 ± 0.04 (10) **		
Thymus																
Absolute (g)		0.269 ± 0.016 (12)			0.246 ± 0.013 (12)			0.278 ± 0.021 (12)			0.282 ± 0.014 (12)			0.081 ± 0.005 (10) **		
Relative (mg/g)		1.23 ± 0.07 (12)			1.15 ± 0.06 (12)			1.26 ± 0.09 (12)			1.25 ± 0.06 (12)			0.42 ± 0.03 (10) **		

Study Number: I07062
Test Type: TOX
Route: Whole-Body Inhalation
Species/Strain: Rat/Harlan Sprague Dawley

PA06: Organ Weights Summary
Test Compound: 1020 Long Multiwalled Carbon Nanotube
CAS Number: L-MWNT-1020

Date Report Requested: 12/27/2024
Time Report Requested: 11:06:32
Lab: Burleson Research Technologies

Females: NK																
		Treatment Groups (mg/m ³)														
		0			0.06			0.2			0.6			15 mg/kg CPS		
Terminal Body Wt. (g)		200.5	± 3.4	(12)	203.6	± 2.8	(12)	197.3	± 3.6	(12)	205.3	± 3.4	(12)	187.9	± 4.1	(10) *
Spleen																
Absolute (g)		0.505 ± 0.014 (12)			0.533 ± 0.019 (12)			0.514 ± 0.018 (12)			0.549 ± 0.015 (12)			0.323 ± 0.010 (10) **		
Relative (mg/g)		2.52 ± 0.06 (12)			2.61 ± 0.07 (12)			2.61 ± 0.09 (12)			2.67 ± 0.05 (12)			1.72 ± 0.06 (10) **		
Thymus																
Absolute (g)		0.243 ± 0.013 (12)			0.262 ± 0.015 (12)			0.278 ± 0.014 (12)			0.260 ± 0.009 (12)			0.123 ± 0.008 (10) **		
Relative (mg/g)		1.22 ± 0.08 (12)			1.29 ± 0.07 (12)			1.41 ± 0.08 (12)			1.27 ± 0.05 (12)			0.65 ± 0.04 (10) **		

Females: SRBC																
		Treatment Groups (mg/m ³)														
		0			0.06			0.2			0.6			15 mg/kg CPS		
Terminal Body Wt. (g)		224.4	± 4.7	(12)	218.1	± 3.0	(12)	223.2	± 3.6	(12)	224.7	± 5.5	(12)	211.3	± 4.3	(10)
Spleen																
Absolute (g)		0.614 ± 0.023 (12)			0.571 ± 0.017 (12)			0.556 ± 0.020 (11)			0.573 ± 0.024 (11)			0.348 ± 0.011 (10) **		
Relative (mg/g)		2.74 ± 0.09 (12)			2.62 ± 0.05 (12)			2.50 ± 0.09 (11)			2.56 ± 0.07 (11)			1.65 ± 0.05 (10) **		
Thymus																
Absolute (g)		0.280 ± 0.013 (12)			0.270 ± 0.016 (12)			0.273 ± 0.007 (12)			0.262 ± 0.013 (12)			0.127 ± 0.007 (10) **		
Relative (mg/g)		1.25 ± 0.05 (12)			1.23 ± 0.06 (12)			1.22 ± 0.02 (12)			1.17 ± 0.06 (12)			0.60 ± 0.03 (10) **		

Study Number: I07062

Test Type: TOX

Route: Whole-Body Inhalation

Species/Strain: Rat/Harlan Sprague Dawley

PA06: Organ Weights Summary

Test Compound: 1020 Long Multiwalled Carbon Nanotube

CAS Number: L-MWNT-1020

Date Report Requested: 12/27/2024

Time Report Requested: 11:06:32

Lab: Burleson Research Technologies

LEGEND

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

Relative organ weights (organ-weight-to-body-weight ratios) are given as mg organ weight/g body weight.

Statistical analysis performed by Jonckheere (trend) and Williams or Dunnett (pairwise) tests. The positive control group (15 mg/kg CPS) was excluded from trend test.

Statistical analysis for the positive control group (15 mg/kg CPS) compared to the vehicle control group was performed using the t-test.

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 $P \leq 0.01$

SEM = Standard Error of the Mean

SD = Study Day

CPS = Cyclophosphamide

CTL females from the vehicle control and treatment groups were removed on SD 43-44.

Immunopath females from the vehicle control and treatment groups were removed on SD 38-39.

Immunophenotyping females from the vehicle control and treatment groups were removed on SD 42-43.

KLH females from the vehicle control and treatment groups were removed on SD 50.

NK females from the vehicle control and treatment groups were removed on SD 37-38.

SRBC females from the vehicle control and treatment groups were removed on SD 43.

One female from the SRBC 0.2 mg/m³ and one female from the SRBC 0.6 mg/m³ groups were excluded as outliers.

**** END OF REPORT ****