

M19: TDAR SRBC: ELISpot

Study Number: I07062
DTTID: 108-006-005-000-0
Study Type: Immune screening
Species/Strain: Rat/Sprague Dawley

Test Compound: 1020 Long Multiwalled Carbon Nanotubes
CAS Number: L-MWNT-1020
DTXSID: DTXSID601356181

Date: 29 Aug 2024
Time: 3:15:09 PM

Females: SRBC

	Treatment Groups				
	0 mg/m ³	0.06 mg/m ³	0.2 mg/m ³	0.6 mg/m ³	15 mg/kg CPS
Spleen Weight (g)	0.614 ± 0.023[12]	0.571 ± 0.017[12]	0.519 ± 0.041[12]	0.632 ± 0.063[12]	0.348 ± 0.011[10]**
Spleen Cells (x10 ⁶)	393.10 ± 11.64[12]	386.75 ± 27.76[12]	431.25 ± 20.88[12]	422.10 ± 20.62[12]	109.44 ± 6.55[10]**
IgM AFC/10 ⁶ Spleen Cells	257.5 ± 49.7[12]	202.1 ± 31.0[12]	232.3 ± 40.9[12]	228.0 ± 22.7[10]	11.5 ± 2.9[10]**
IgM AFC/Spleen (x10 ³)	104.08 ± 21.74[12]	75.54 ± 10.78[12]	103.26 ± 18.91[12]	95.50 ± 11.90[10]	1.22 ± 0.29[10]**

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LEGEND

The ELISpot assay was conducted on the same set of animals as the AFC assay. Data for spleen weight and spleen cell count reported here are also included on the M07 report.

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

Statistical analysis was performed by Jonckheere (trend) and then a pairwise test. Williams/Dunnett pairwise tests are used for organ weights, Shirley/Dunn pairwise tests are used for all other endpoints. The positive control group (15 mg/kg CPS) was excluded from the trend test.

Statistical analysis for the positive control group (15 mg/kg CPS) compared to the vehicle control group was performed using a t-test for organ weights and a Wilcoxon rank sum test for all other endpoints.

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 $P \leq 0.01$

TDAR = T-Dependent Antibody Response; SRBC = Sheep Red Blood Cells; AFC = Antibody-Forming Cells; IgM = Immunoglobulin M

SEM = Standard Error of the Mean

SD = Study Day

CPS = Cyclophosphamide

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

**** END OF REPORT ****