

M04: Hematology

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: 2:58:59 PM

Females: Immunopath

	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
Absolute counts					
Erythrocyte (x10 ⁶)	7.363 ± 0.079[10]	7.434 ± 0.079[9]	7.421 ± 0.075[10]	7.382 ± 0.118[12]	7.148 ± 0.109[9]
Hemoglobin (g/dL)	13.79 ± 0.19[10]	13.73 ± 0.17[9]	13.74 ± 0.14[10]	13.72 ± 0.20[12]	13.26 ± 0.25[9]
Hematocrit (%)	43.66 ± 0.59[10]	43.54 ± 0.57[9]	43.18 ± 0.55[10]	43.45 ± 0.80[12]	41.46 ± 0.96[9]
MCV (fL)	59.27 ± 0.35[10]	58.59 ± 0.40[9]	58.18 ± 0.25[10]	58.83 ± 0.45[12]	57.97 ± 0.54[9]*
MCH (pg)	18.74 ± 0.08[10]	18.49 ± 0.13[9]	18.51 ± 0.22[10]	18.62 ± 0.19[12]	18.56 ± 0.12[9]
MCHC (g/dL)	31.60 ± 0.17[10]	31.58 ± 0.17[9]	31.85 ± 0.35[10]	31.64 ± 0.24[12]	32.03 ± 0.22[9]
Platelets (x10 ³)	978.5 ± 43.0[12]*	894.2 ± 62.5[11]	768.2 ± 77.5[11]	789.7 ± 76.9[12]	766.2 ± 45.8[10]**
Leukocyte (x10 ³)	10.10 ± 0.69[12]	10.62 ± 0.71[11]	9.17 ± 0.68[11]	11.35 ± 0.52[12]	3.05 ± 0.16[10]**
Reticulocytes (x10 ³)	260.06 ± 12.24[12]	238.53 ± 19.70[11]	246.66 ± 12.96[11]	252.58 ± 17.86[12]	33.24 ± 5.55[10]**
Relative counts					
Percent Reticulocytes (%)	3.616 ± 0.139[12]	3.273 ± 0.234[11]	3.360 ± 0.157[11]	3.445 ± 0.266[12]	0.470 ± 0.075[10]**

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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. 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 Wilcoxon rank sum 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

MCV = Mean Corpuscular Volume; MCH = Mean Corpuscular Hemoglobin, MCHC = Mean Cell Hemoglobin Concentration

SD = Study Day

CPS = Cyclophosphamide

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

OUTLIERS

Values for Erythrocyte, Hemoglobin, Hematocrit, MCV, MCH, and MCHC were excluded as outliers for 2 animals from the 0 mg/m³ group, 2 animals from the 0.06 mg/m³ group, 1 animal from the 0.2 mg/m³ group, and 1 animal from the 15 mg/kg CPS group.

** END OF REPORT **