

M15: Natural Killer Cell Activity

Study Number: I07062C

DTTID: 108-006-008-000-3

Study Type: Immune screening

Species/Strain: Mouse/B6C3F1/N

Test Compound: 1020 Long Multiwalled Carbon Nanotubes

CAS Number: L-MWNT-1020

DTXSID: DTXSID601356181

Date: 29 Aug 2024

Time: 4:13:26 PM

Females: NK

	Treatment Groups				
	0 mg/m ³	0.06 mg/m ³	0.2 mg/m ³	0.6 mg/m ³	50 mg/kg CPS
NK Cell Activity (5:1)	20.59 ± 1.36[8]*	16.91 ± 1.62[8]	17.09 ± 2.66[8]	16.17 ± 1.77[8]	8.10 ± 1.37[7]**
NK Cell Activity (10:1)	27.44 ± 1.62[8]	22.96 ± 1.94[8]	22.98 ± 2.62[8]	23.07 ± 2.51[8]	8.81 ± 1.29[7]**
NK Cell Activity (20:1)	34.10 ± 2.37[8]	26.50 ± 2.19[8]	28.83 ± 3.16[8]	28.42 ± 3.36[8]	8.83 ± 1.46[5]**

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LEGEND

Data are displayed as mean \pm SEM (N) of effector: target cell ratio unless otherwise noted.

NK Cell Activity is expressed as % target cell killing, calculated as $((\text{Sample Cr}^{51} \text{ Release} - \text{Spontaneous Cr}^{51} \text{ Release}) / (\text{Total Cr}^{51} \text{ Release} - \text{Spontaneous Cr}^{51} \text{ Release})) * 100$

Statistical analysis performed by Jonckheere (trend) and Shirley or Dunn (pairwise) tests. The positive control group (50 mg/kg CPS) was excluded from trend test.

Statistical analysis for the positive control group (50 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 $P \leq 0.01$

NK = Natural Killer

SEM = Standard Error of the Mean

SD = Study Day

CPS = Cyclophosphamide

Females from the vehicle control and treatment groups were removed on SD 114-115.

** END OF REPORT **