## M15: Natural Killer Cell Activity

Study Number: I07062B DTTID: 108-006-006-000-1

Study Type: Immune screening Species/Strain: Mouse/B6C3F1/N

Test Compound: 1020 Long Multiwalled Carbon Nanotubes

Date: 29 Aug 2024

Time: 3:49:26 PM

CAS Number: L-MWNT-1020

DTXSID: DTXSID601356181

Females: NK

	Treatment Groups				
	$0 \text{ mg/m}^3$	$0.06~\mathrm{mg/m^3}$	$0.2~\mathrm{mg/m^3}$	$0.6~\mathrm{mg/m^3}$	50 mg/kg CPS
NK Cell Activity (5:1)	$17.29 \pm 1.70[8]$	$16.12 \pm 2.05[7]$	$16.50 \pm 0.76[7]$	$13.44 \pm 1.18[8]$	$3.69 \pm 0.66[8]$ **
NK Cell Activity (10:1)	$24.07 \pm 2.06[8]$	$22.63 \pm 2.56[7]$	$23.94 \pm 1.27[7]$	$19.31 \pm 1.54[8]$	$5.15 \pm 1.04[6]$ **
NK Cell Activity (20:1)	$28.27 \pm 3.05[7]$	$27.81 \pm 3.17[7]$	$30.06 \pm 1.89[7]$	$22.77 \pm 0.65[5]$	

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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 ((Sample  $Cr^{51}$  Release - Spontaneous  $Cr^{51}$  Release)/(Total  $Cr^{51}$  Release - Spontaneous  $Cr^{51}$  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  $P \le 0.05$
- \*\* Statistically significant at  $P \le 0.01$

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 38-39.

\*\* END OF REPORT \*\*