

M15: Natural Killer Cell Activity

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: 3:16:39 PM

Females

	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
NK Cell Activity (12.5:1)	24.55 ± 1.64[12]	20.69 ± 1.79[12]	21.87 ± 1.60[12]	25.06 ± 1.61[12]	22.77 ± 1.72[10]
NK Cell Activity (25:1)	38.71 ± 2.42[12]	32.94 ± 2.62[12]	34.17 ± 2.39[12]	39.65 ± 2.36[12]	34.39 ± 2.46[10]
NK Cell Activity (50:1)	53.83 ± 2.59[11]	47.67 ± 3.18[12]	47.97 ± 2.53[12]	54.94 ± 2.66[11]	45.78 ± 2.68[9]*

M15: Natural Killer Cell Activity

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: 3:16:39 PM

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 (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 $P \leq 0.01$

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 37-38.

**** END OF REPORT ****