

M12: Cytotoxic T Cell Activity

Study Number: I99067

DTTID: 103-002-003-000-9

Study Type: immune screening

Species/Strain: Rat/Harlan Sprague Dawley

Test Compound: Echinacea purpurea extract

CAS Number: 90028-20-9

DTXSID: DTXSID0031265

Date: 30 Jan 2026

Time: 10:00:35 AM

Females: CTL

	Treatment Groups						
	0 mg/kg	125 mg/kg	250 mg/kg	500 mg/kg	1000 mg/kg	2000 mg/kg	15 mg/kg CPS
CTL Activity (12.5:1) ^a	6.41 ± 0.81[12]	10.57 ± 1.30[11]	11.00 ± 1.46[12]	8.19 ± 0.80[12]	6.00 ± 0.80[12]	9.23 ± 1.17[12]	1.78 ± 0.19[8]**
CTL Activity (25:1)	13.90 ± 1.83[12]	23.55 ± 3.12[11]	25.79 ± 3.37[12]*	18.00 ± 1.68[12]	14.68 ± 2.27[12]	22.96 ± 2.74[12]	2.07 ± 0.57[8]**
CTL Activity (50:1)	33.44 ± 2.59[12]	44.10 ± 3.52[11]	45.84 ± 4.49[12]	39.70 ± 2.21[12]	36.97 ± 3.94[12]	45.96 ± 3.64[12]*	2.34 ± 0.84[8]**

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LEGEND

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

^aCTL 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 $p \leq 0.01$

CTL = Cytotoxic T Lymphocytes

SEM = Standard Error of the Mean

SD = Study Day

CPS = Cyclophosphamide

All animals were removed from the study on SD 28.

** END OF REPORT **