

Experiment Number: **G99020C**

Test Type: **Genetic Toxicology - In Vivo Alkaline Comet Assay**

Route: **Oral Gavage**

Species/Strain: **Rat/F344/Ntac**

G01: In Vivo Alkaline Comet Summary Data

Test Compound: **Styrene-acrylonitrile trimer**

CAS Number: **SANTRIMER2**

Date Report Requested: **08/31/2018**

Time Report Requested: **14:03:07**

NTP Study Number: G99020C

Study Duration: 4 day

Male Study Result: Positive

Female Study Result: Positive

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Sex: Male; Number of Treatments: 4; Time interval between final treatment and cell sampling: 4 h

Dose (mg/kg/day)	N	Blood		Brain Left Lobe Cerebellum		
		Percent Tail DNA	p-Value	N	Percent Tail DNA	p-Value
Vehicle Control ¹	5	3.326 ± 0.226		5	13.500 ± 0.191	
37.5	5	2.614 ± 0.194	0.8510	5	12.800 ± 1.679	0.5684
75	5	3.102 ± 0.237	0.8253	5	13.507 ± 1.280	0.5793
150	5	3.675 ± 0.316	0.1931	5	16.301 ± 1.003	0.1125
300	4	4.340 ± 0.144	0.0050 *	4	16.086 ± 2.375	0.1305
Trend p-Value		< 0.001 *			0.0309	
Positive Control ²	5	32.293 ± 0.670	< 0.001 *	5	41.968 ± 0.861	< 0.001 *

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Dose (mg/kg/day)	Brain Left Lobe Cerebrum			Brain Right Lobe Cerebellum		
	N	Percent Tail DNA	p-Value	N	Percent Tail DNA	p-Value
Vehicle Control ¹	5	7.388 ± 0.609		5	8.368 ± 0.797	
37.5	5	7.919 ± 1.738	0.4168	5	9.135 ± 0.942	0.3595
75	5	7.531 ± 0.985	0.4940	5	9.654 ± 0.662	0.4287
150	5	8.928 ± 0.915	0.2329	5	8.386 ± 1.308	0.4568
300	4	11.122 ± 1.518	0.0284	4	14.300 ± 2.961	0.0052 *
Trend p-Value		0.0099 *			0.0060 *	
Positive Control ²	5	33.242 ± 2.115	< 0.001 *	5	37.647 ± 0.733	< 0.001 *

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Dose (mg/kg/day)	Brain Right Lobe Cerebrum			Liver		
	N	Percent Tail DNA	p-Value	N	Percent Tail DNA	p-Value
Vehicle Control ¹	5	6.555 ± 0.594		5	10.605 ± 2.951	
37.5	5	6.162 ± 0.235	0.5930	5	13.598 ± 0.897	0.1736
75	5	7.020 ± 0.498	0.3832	5	12.059 ± 1.325	0.2100
150	5	6.837 ± 0.462	0.4099	5	14.955 ± 0.670	0.0478
300	4	9.417 ± 1.050	0.0018 *	4	17.448 ± 1.328	0.0064 *
Trend p-Value		< 0.001 *			0.0039 *	
Positive Control ²	5	31.720 ± 1.363	< 0.001 *	5	29.960 ± 0.592	< 0.001 *

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Sex: Female; Number of Treatments: 4; Time interval between final treatment and cell sampling: 4 h

Dose (mg/kg/day)	N	Blood		Brain Left Lobe Cerebellum		
		Percent Tail DNA	p-Value	N	Percent Tail DNA	p-Value
Vehicle Control ¹	4	6.221 ± 0.357		4	8.489 ± 0.757	
37.5	4	5.060 ± 0.626	0.6900	4	8.204 ± 1.141	0.5391
75	5	6.176 ± 0.646	0.5892	5	11.241 ± 0.743	0.0474
150	5	7.570 ± 0.650	0.2112	5	10.718 ± 0.970	0.0499
300	5	7.006 ± 1.078	0.2187	5	12.496 ± 1.001	0.0048 *
Trend p-Value		0.0673			0.0020 *	
Positive Control ²	4	35.342 ± 0.967	0.0105 *	4	36.363 ± 1.579	< 0.001 *

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Dose (mg/kg/day)	Brain Left Lobe Cerebrum			Brain Right Lobe Cerebellum		
	N	Percent Tail DNA	p-Value	N	Percent Tail DNA	p-Value
Vehicle Control ¹	4	8.312 ± 0.616		4	9.971 ± 0.976	
37.5	4	7.758 ± 0.489	0.5882	4	7.912 ± 0.965	0.7079
75	5	8.678 ± 1.112	0.4385	5	10.022 ± 1.649	0.5602
150	5	9.331 ± 0.786	0.2424	5	11.013 ± 0.639	0.3482
300	5	9.798 ± 0.616	0.1355	5	12.606 ± 1.308	0.0927
Trend p-Value		0.0338			0.0109 *	
Positive Control ²	4	29.837 ± 0.445	< 0.001 *	4	30.749 ± 0.955	< 0.001 *

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Dose (mg/kg/day)	Brain Right Lobe Cerebrum			Liver		
	N	Percent Tail DNA	p-Value	N	Percent Tail DNA	p-Value
Vehicle Control ¹	4	7.960 ± 1.004		4	19.416 ± 0.979	
37.5	4	9.282 ± 0.410	0.1346	4	21.164 ± 0.712	0.3463
75	5	11.153 ± 0.502	0.0057 *	5	22.975 ± 3.011	0.2356
150	5	11.844 ± 0.858	0.0019 *	5	25.730 ± 1.792	0.0901
300	5	11.492 ± 0.863	0.0020 *	5	31.561 ± 4.579	0.0052 *
Trend p-Value		0.0063 *			< 0.001 *	
Positive Control ²	4	28.412 ± 1.171	< 0.001 *	4	38.477 ± 1.752	< 0.001 *

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LEGEND

CAS Number = Chemical Abstracts Service registry number

N = Number of subjects

Values given as Mean or Mean \pm Standard Error Mean

Pairwise comparison with the control group; values are significant at $P \leq 0.025$ by Williams or Dunn's test

Dose-related trend; significant at $P \leq 0.025$ by linear regression or Jonckheere's test

* Statistically significant pairwise or trend test

1: Vehicle Control: Corn Oil

2: 200 mg/kg/day Ethyl Methanesulfonate

**** END OF REPORT ****