

Experiment Number: **G18023C**

Test Type: **Genetic Toxicology - In Vitro  
Micronucleus**

**G03: In Vitro Micronucleus Summary Data**

Test Compound: **Cornerstone Plus|Distilled Water**

Date Report Requested: **09/24/2021**

Time Report Requested: **14:09:17**

**NTP Study Number:**

G18023C

**Cell Type:**

TK6

**Study Result:**

Negative

Experiment Number: G18023C

## G03: In Vitro Micronucleus Summary Data

Date Report Requested: 09/24/2021

Test Type: Genetic Toxicology - In Vitro  
Micronucleus

Test Compound: Cornerstone Plus|Distilled Water

Time Report Requested: 14:09:17

Duration: 4 h; Activation: Without S9

Concentration (dilution)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	% MN	p-Value
	Mean	Mean	Mean	Mean ± SEM	
Vehicle Control <sup>1</sup>	100.0	2.23	1.0	0.539 ± 0.043	
0.000086	108.9	2.33	1.0	0.793 ± 0.093	0.1185
0.000122	97.5	2.23	1.0	0.760 ± 0.110	0.2164
0.000173	93.2	2.17	1.0	0.680 ± 0.072	0.7869
0.000244	93.3	1.97	0.9	0.767 ± 0.047	0.1133
0.000299	95.6	1.97	0.9	0.700 ± 0.155	1.0000
0.000367	88.2	1.9	0.9	0.413 ± 0.044	1.0000
0.000449	96.1	2.23	1.0	0.553 ± 0.084	1.0000
0.00055	104.0	2.37	1.1	0.660 ± 0.090	1.0000
0.000673	95.5	2.8	1.3	0.660 ± 0.046	1.0000
0.000825	85.2	2.27	1.0	0.600 ± 0.064	1.0000
0.00101	99.5	1.77	0.8	0.693 ± 0.064	0.5810
0.001429	78.8	2.27	1.0	0.667 ± 0.075	1.0000
Trend p-Value				0.0600	
VIN <sup>2</sup>	46.9	28.03	12.6	2.965 ± 0.282	0.0010 *
Trial Summary: Negative					

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Time Report Requested: 14:09:17

Duration: 4 h; Activation: Without S9

Concentration (dilution)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	% MN		p-Value
	Mean	Mean	Mean	Mean ± SEM		
Vehicle Control <sup>1</sup>	100.0	1.31	1.0	0.589 ±	0.045	
0.000302	102.7	1.5	1.1	0.520 ±	0.061	1.0000
0.000428	86.5	1.33	1.0	0.393 ±	0.055	1.0000
0.000605	92.7	1.67	1.3	0.553 ±	0.053	1.0000
0.000855	83.5	2.03	1.6	0.567 ±	0.073	1.0000
0.001048	61.5	3.77	2.9	0.813 ±	0.094	0.1545
0.001283	64.2	3.27	2.5	0.693 ±	0.123	0.9182
0.001571	40.5	43.7	33.4	139.060 ±	130.550	
0.001925	1.2	74.37	56.8	34.380 ±	32.820	
0.002357	0.0	96.23	73.5	50.000 ±	50.000	
0.002887	0.0	100.0	76.3			
0.003536	0.0	100.0	76.3			
0.005	0.1	93.85	71.6	16.670 ±	16.670	
Trend p-Value				0.1303		
VIN <sup>2</sup>	60.5	9.48	7.2	7.230 ±	1.419	0.0010 *

Trial Summary: Negative

Experiment Number: G18023C

**G03: In Vitro Micronucleus Summary Data**

Date Report Requested: 09/24/2021

Test Type: Genetic Toxicology - In Vitro  
Micronucleus

Test Compound: Cornerstone Plus|Distilled Water

Time Report Requested: 14:09:17

Duration: 24 h; Activation: Without S9

Concentration (dilution)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	% MN	p-Value
	Mean	Mean	Mean	Mean ± SEM	
Vehicle Control <sup>1</sup>	100.0	2.47	1.0	0.541 ± 0.041	
0.000086	108.6	2.13	0.9	0.740 ± 0.150	1.0000
0.000122	103.1	3.6	1.5	0.413 ± 0.029	1.0000
0.000173	98.5	1.93	0.8	0.493 ± 0.058	1.0000
0.000244	105.4	2.1	0.9	0.467 ± 0.035	1.0000
0.000299	118.0	1.67	0.7	0.407 ± 0.047	1.0000
0.000367	105.9	1.93	0.8	0.547 ± 0.077	1.0000
0.000449	106.5	2.0	0.8	0.480 ± 0.042	1.0000
0.00055	92.1	3.7	1.5	0.720 ± 0.072	0.6227
0.000673	91.7	3.2	1.3	0.480 ± 0.092	1.0000
0.000825	95.7	3.47	1.4	0.513 ± 0.041	1.0000
0.00101	85.2	5.3	2.1	0.993 ± 0.035	0.0666
0.001429	0.0	99.8	40.4	2.560 ± 2.560	
Trend p-Value				0.2166	
VIN <sup>3</sup>	75.6	12.05	4.9	2.925 ± 0.464	0.0010 *
Trial Summary: Negative					

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Date Report Requested: 09/24/2021

Test Type: Genetic Toxicology - In Vitro  
Micronucleus

Test Compound: Cornerstone Plus|Distilled Water

Time Report Requested: 14:09:17

Duration: 4 h; Activation: With 1% Rat S9

Concentration (dilution)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	% MN	p-Value
	Mean	Mean	Mean	Mean ± SEM	
Vehicle Control <sup>1</sup>	100.0	2.09	1.0	0.528 ± 0.036	
0.000101	96.4	2.1	1.0	0.653 ± 0.101	0.9453
0.000143	105.9	2.13	1.0	0.607 ± 0.024	0.7772
0.000202	97.2	1.93	0.9	0.333 ± 0.059	1.0000
0.000285	96.5	2.07	1.0	0.433 ± 0.047	1.0000
0.000349	104.5	2.1	1.0	0.407 ± 0.047	1.0000
0.000428	107.3	2.0	1.0	0.407 ± 0.074	1.0000
0.000524	103.1	1.93	0.9	0.493 ± 0.066	1.0000
0.000642	96.4	2.23	1.1	0.427 ± 0.013	1.0000
0.000786	102.0	1.97	0.9	0.547 ± 0.047	1.0000
0.000962	89.0	2.23	1.1	0.493 ± 0.107	1.0000
0.001179	95.2	2.0	1.0	0.640 ± 0.129	1.0000
0.001667	31.3	10.43	5.0	0.900 ± 0.350	
Trend p-Value				0.5877	
CPA <sup>4</sup>	48.4	14.4	6.9	2.495 ± 0.233	< 0.001 *
Trial Summary: Negative					

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LEGEND

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MN = Micronuclei, CAS = Chemical abstract registry

For the 4 h chemical exposures with and without S9, the medium with test article (and S9, if present) is changed after 4 h and replaced with fresh medium without test article or S9, and cells are cultured for an additional 20 h to achieve a total culture time of 24 h

Values given as Mean or Mean  $\pm$  Standard Error Mean

Statistical analysis only performed on: % MN

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

Positive control: pairwise comparison with the vehicle control; values are significant at  $P \leq 0.05$  by Mann Whitney U test

Apoptotic and necrotic cells are detected in the assay as ethidium monoazide (EMA)-positive events

Concentration-related trend; significant at  $P \leq 0.025$  by Jonckheere's test

\* Statistically significant pairwise or trend test

The number of wells per concentration of test article = 3

1: Vehicle Control: Distilled Water

2: Positive Control: 3 ng/mL Vinblastine sulfate

3: Positive Control: 0.5 ng/mL Vinblastine sulfate

4: Positive Control: 3 ug/mL Cyclophosphamide monohydrate

**\*\* END OF REPORT \*\***