

Experiment Number: **G88067C**

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

G03: In Vitro Micronucleus Summary Data

Test Compound: **Glyphosate|Distilled Water**

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

Time Report Requested: **14:39:08**

NTP Study Number:

G88067C

Cell Type:

TK6

Study Result:

Negative

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Date Report Requested: 09/24/2021

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Test Compound: Glyphosate|Distilled Water

Time Report Requested: 14:39:08

Duration: 4 h; Activation: Without S9

Concentration (mM)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	% MN	p-Value
	Mean	Mean	Mean	Mean ± SEM	
Vehicle Control ¹	100.0	3.55	1.0	0.976 ± 0.050	
0.6	93.7	3.13	0.9	0.727 ± 0.096	1.0000
0.86	94.2	3.0	0.8	0.767 ± 0.109	1.0000
1.21	99.0	3.07	0.9	1.087 ± 0.165	1.0000
1.71	104.6	3.37	0.9	0.960 ± 0.053	1.0000
2.1	98.2	3.17	0.9	0.993 ± 0.035	1.0000
2.57	101.8	3.3	0.9	1.187 ± 0.144	1.0000
3.14	105.1	3.43	1.0	1.100 ± 0.125	1.0000
3.85	99.3	3.23	0.9	1.073 ± 0.145	1.0000
4.71	102.7	3.17	0.9	1.020 ± 0.162	1.0000
5.77	98.9	3.13	0.9	0.993 ± 0.223	1.0000
7.07	98.9	3.0	0.8	0.727 ± 0.127	1.0000
10	102.7	3.17	0.9	0.740 ± 0.061	1.0000
Trend p-Value				0.7770	
VIN ²	18.1	54.95	15.5	4.738 ± 0.524	< 0.001 *
Trial Summary: Negative					

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Date Report Requested: 09/24/2021
 Time Report Requested: 14:39:08

Duration: 24 h; Activation: Without S9

Concentration (mM)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	% MN	p-Value
	Mean	Mean	Mean	Mean ± SEM	
Vehicle Control ¹	100.0	1.91	1.0	0.897 ± 0.060	
0.6	114.1	2.1	1.1	0.913 ± 0.013	1.0000
0.86	108.0	1.93	1.0	0.767 ± 0.073	1.0000
1.21	111.4	2.1	1.1	0.953 ± 0.057	1.0000
1.71	109.7	1.87	1.0	0.760 ± 0.081	1.0000
2.1	119.5	1.83	1.0	0.840 ± 0.170	1.0000
2.57	116.3	1.77	0.9	0.747 ± 0.077	1.0000
3.14	111.3	2.07	1.1	0.760 ± 0.042	1.0000
3.85	107.1	2.0	1.0	0.787 ± 0.174	1.0000
4.71	103.7	2.07	1.1	0.780 ± 0.040	1.0000
5.77	112.3	1.9	1.0	0.973 ± 0.074	1.0000
7.07	111.9	1.8	0.9	0.707 ± 0.088	1.0000
10	126.9	2.0	1.0	0.827 ± 0.098	1.0000
Trend p-Value				0.8993	
VIN ³	55.9	24.85	13.0	5.515 ± 0.429	0.0010 *

Trial Summary: Negative

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 Micronucleus

G03: In Vitro Micronucleus Summary Data
 Test Compound: Glyphosate|Distilled Water

Date Report Requested: 09/24/2021
 Time Report Requested: 14:39:08

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

Concentration (mM)	% Relative Survival	% Apoptosis and Necrosis	Fold Change in Apoptosis and Necrosis	% MN	p-Value
	Mean	Mean	Mean	Mean ± SEM	
Vehicle Control ¹	100.0	1.86	1.0	0.915 ± 0.044	
0.6	96.8	2.1	1.1	1.420 ± 0.341	0.4750
0.86	96.6	1.9	1.0	0.913 ± 0.247	1.0000
1.21	96.9	2.0	1.1	0.967 ± 0.238	1.0000
1.71	98.6	1.93	1.0	1.040 ± 0.092	1.0000
2.1	100.7	1.7	0.9	1.300 ± 0.277	0.8686
2.57	97.7	1.87	1.0	1.480 ± 0.470	0.7896
3.14	98.2	1.97	1.1	1.580 ± 0.420	0.1734
3.85	95.5	2.17	1.2	1.060 ± 0.291	1.0000
4.71	95.5	1.93	1.0	1.507 ± 0.388	0.2817
5.77	96.7	1.9	1.0	1.400 ± 0.389	0.7401
7.07	97.5	1.63	0.9	1.573 ± 0.255	0.0681
10	98.7	2.1	1.1	1.487 ± 0.332	0.2709
Trend p-Value				< 0.001 *	
CPA ⁴	32.0	38.73	20.8	6.940 ± 0.888	0.0010 *

Trial Summary: Negative

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LEGEND

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 ****