

Supplementary data to:

**GENOTOXIC AND CYTOTOXIC POTENTIAL OF WHOLE PLANT
EXTRACTS OF KALANCHOE LACINIATA BY
AMES AND MTT ASSAY**

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MUTAGENIC INDEX OF AQUA-METHANOLIC EXTRACT

Table 1: Number of revertant colonies used in calculations

Number of revertant colonies per plate				
Concentration (mg/plate)	TA-100 (no. of revertant colonies)	TA-100 (no. of revertant colonies)	TA-102 (no. of revertant colonies)	TA-102 (no. of revertant colonies)
	without S9	with S9	without S9	with S9
150	4031	5112	6029	7500
75	3000	3900	4400	5597
37.5	2300	3100	1384	1732
18.75	600	1101	940	1631
9.375	400	440	550	1110
Positive control	777	1597	1213	2187
Negative Control	110	119	119	137

Table 2: Mutagenic Index of respective dilutions

Mutagenic Index of respective dilutions calculated as M.I. =(number of revertant colonies of respective concentration/number of revertant colonies of negative control)				
Concentration (mg/plate)	TA-100 (no. of revertant colonies)	TA-100 (no. of revertant colonies)	TA-102 (no. of revertant colonies)	TA-102 (no. of revertant colonies)
	Mutagenic Index (without S9)	Mutagenic Index (with S9)	Mutagenic Index (without S9)	Mutagenic Index (with S9)
150	36.64545455	42.95798	50.66387	54.74453
75	27.27272727	32.77311	36.97479	40.85401
37.5	20.90909091	26.05042	11.63025	12.64234
18.75	5.454545455	9.252101	7.89916	11.90511
9.375	3.636363636	3.697479	4.621849	15.9635
Positive Control	7.063636364	13.42017	10.19328	15.9635

Table 3: Mean of number of revertant colonies

Concentration (mg/plate)	TA 100 (without S9)	TA 100 (with S9)	TA 100 (without S9)	TA 102 (with S9)
150	4031.333333	5112	6029	7500
75	3000	3933.333333	4400	5596.667
37.5	2300	3100	1384	1732.333
18.75	600	1101	940	1633.333
9.375	400	440	550	1110
Positive Control	777	1597	1213	2186.667

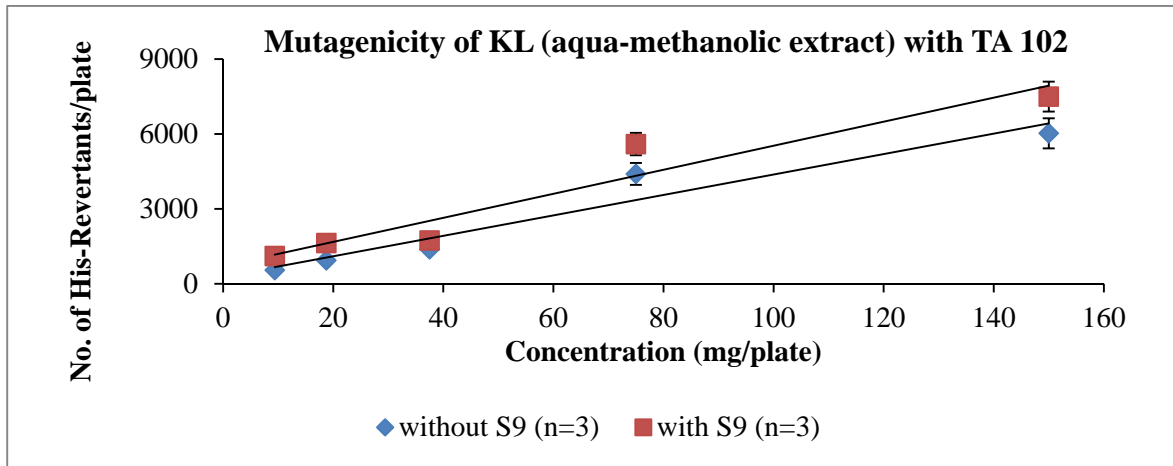


Figure 1: Dose-dependent increase in revertant colonies of aqua-methanolic extract of *Kalanchoe laciniata* whole plant with *Salmonella typhimurium* TA 102 strain

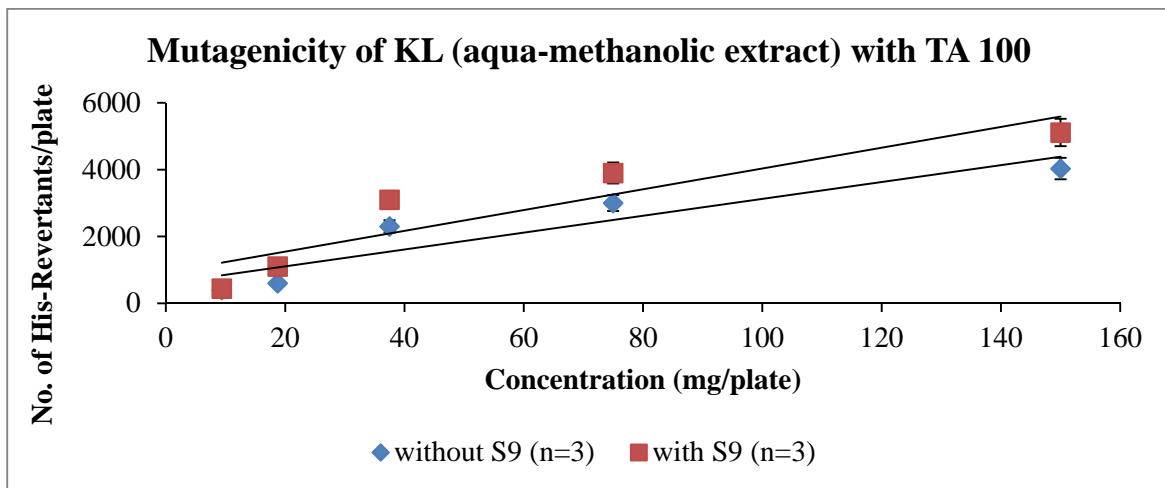


Figure 2: Dose-dependent increase in revertant colonies of aqua-methanolic extract of *Kalanchoe laciniata* whole plant with *Salmonella typhimurium* TA 100 strains

MUTAGENIC INDEX OF N-HEXANE EXTRACT

Table 4: Number of revertant colonies used in calculations

Number of revertant colonies per plate				
Concentration (mg/plate)	TA-100 (no. of revertant colonies) without S9	TA-100 (no. of revertant colonies) with S9	TA-102 (no. of revertant colonies) without S9	TA-102 (no. of revertant colonies) with S9
150	1845	2428	1813	2368
75	1571	1961	1576	2112
37.5	1303	1694	1363	1886
18.75	944	1205	1149	1625
9.375	569	795	967	1369
Positive control	1852	2428	1846	2357
Negative Control (Distilled water)	152	152	119	137

Table 5: Mutagenic Index of respective dilutions

Mutagenic Index of respective dilutions calculated as M.I =(number of revertant colonies of respective concentration/number of revertant colonies of negative control)				
Concentration (mg/plate)	TA-100 (no. of revertant colonies) without S9	TA-100 (no. of revertant colonies) with S9	TA-102 (no. of revertant colonies) without S9	TA-102 (no. of revertant colonies) with S9
150	12.13816	15.97368	15.23529	17.28467
75	10.33553	12.90132	13.2437	15.41606
37.5	8.572368	11.14474	11.45378	13.76642
18.75	6.210526	7.927632	9.655462	11.86131
9.375	3.743421	5.230263	8.12605	9.992701
Positive control	12.18421	15.97368	15.51261	17.20438
Negative Control	152	152	119	137

Table 6: Mean of number of revertant colonies

Concentration (mg/plate)	TA-100 (without S9)	TA-100 (with S9)	TA-102 (without S9)	TA-102 (with S9)
150	1845	2428	1813	2368
75	1571	1961	1576	2112
37.5	1303	1694	1364	1886
18.75	944	1205	1149	1625
9.375	569	795	967	1369
Positive Control	1852	2428	1846	2357

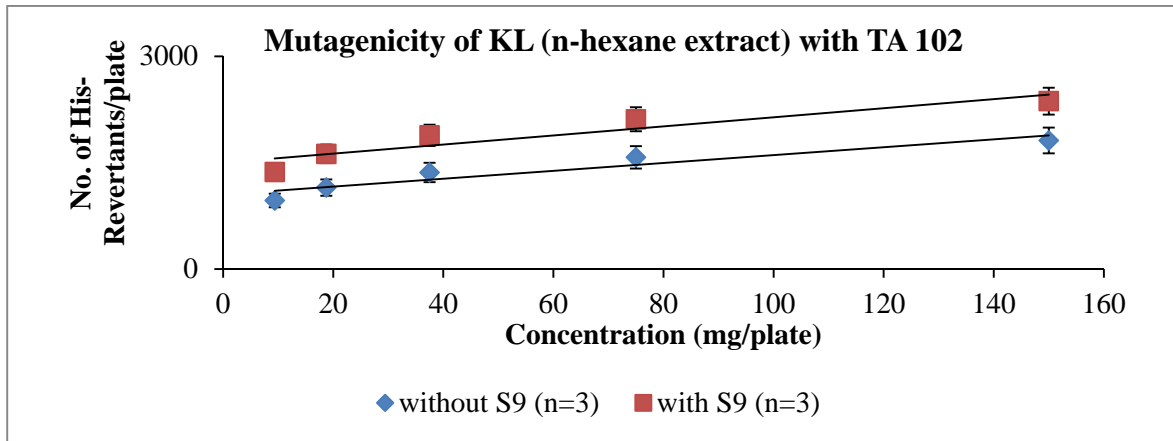


Figure 3: Dose-dependent increase in revertant colonies of n-hexane extract of *Kalanchoe laciniata* whole plant with *Salmonella typhimurium* TA 102 strain

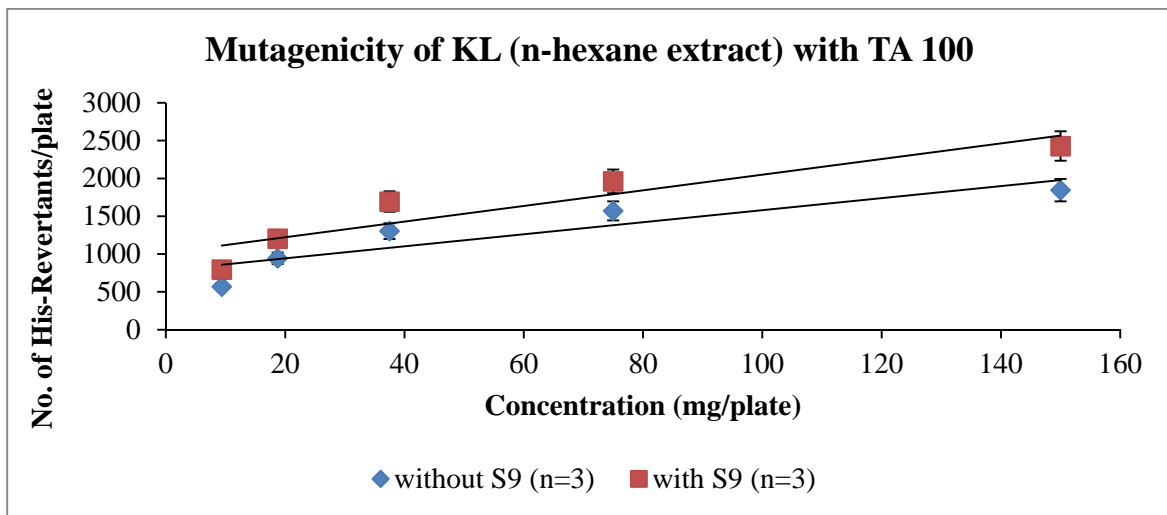


Figure 4: Dose-dependent increase in revertant colonies of n-hexane extract of *Kalanchoe laciniata* whole plant with *Salmonella typhimurium* TA 100 strain

INHIBITORY CONCENTRATION OF AQUA-METHANOLIC EXTRACT CALCULATED FROM GRAPH PAD PRISM

Table 7: Concentration versus percentage viability of aqua-methanolic extracts

Concentration (µg/mL)	Log Concentration (µg/mL)	percentage cell viability
1000.000000	3.000	23.95010
500.000000	2.69897	42.03742
250.000000	2.39794	55.30146
125.000000	2.09691	78.21206
62.500000	1.79588	80.87318
31.250000	1.49485	83.45114
15.625000	1.19382	84.74012
7.812500	0.89279	94.42827
3.906250	0.59176	94.42827
1.953125	0.29073	98.04574

RESULTS OF GRAPH PAD PRISM: LOG (INHIBITOR) VS. NORMALIZED RESPONSE

log(inhibitor) vs. normalized response	
Best-fit values	
LogIC ₅₀	2.508
IC ₅₀	321.9
Std. Error	
LogIC ₅₀	0.04975
95% Confidence Intervals	
LogIC ₅₀	2.395 to 2.620
IC ₅₀	248.4 to 417.1
Goodness of Fit	
Degrees of Freedom	9
R square	0.9533
Absolute Sum of Squares	259.3
Sy.x	5.368
Number of points	
Analyzed	10

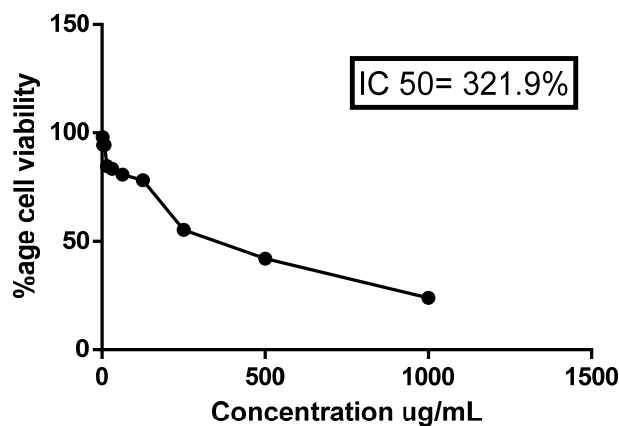


Figure 5: Concentration versus percentage viability of aqua-methanolic extract

INHIBITORY CONCENTRATION OF N-HEXANE EXTRACT CALCULATED FROM GRAPH PAD PRISM

Table 8: Concentration versus percentage viability of n-hexane extracts

Concentration (µg/mL)	Log Concentration (µg/mL)	percentage cell viability
1000.000000	3.000	36.42412
500.000000	2.69897	54.51143
250.000000	2.39794	77.38046
125.000000	2.09691	82.49480
62.500000	1.79588	91.26819
31.250000	1.49485	95.92516
15.625000	1.19382	97.50520
7.812500	0.89279	98.58628
3.906250	0.59176	99.00208
1.953125	0.29073	98.54470

RESULTS OF GRAPH PAD PRISM: LOG (INHIBITOR) VS. NORMALIZED RESPONSE

log(inhibitor) vs. normalized response	
Best-fit values	
LogIC ₅₀	2.805
IC ₅₀	638.5
Std. Error	
LogIC ₅₀	0.02189
95% Confidence Intervals	
LogIC ₅₀	2.756 to 2.855
IC ₅₀	569.7 to 715.6
Goodness of Fit	
Degrees of Freedom	9
R square	0.9899
Absolute Sum of Squares	42.58
Sy.x	2.175
Number of points	
Analyzed	10

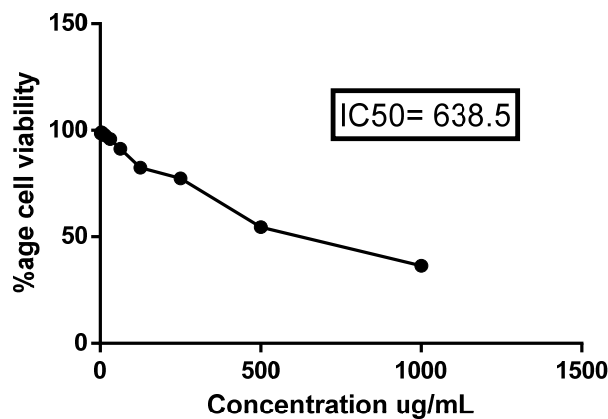


Figure 6: Concentration versus percentage viability of n-hexane extract