

**Table S1.** Effects of various ALEs concentrations on HT-29 cells vitality. Experimental groups comprised cells treated for 4, 8, 16 and 24 h. Percent of growth is expressed as percent of negative control (taken as unit, 100%). Results of each experimental set are summarized as the mean ( $\pm$  SEM) of three independent experiments.

ALEs	Treatment time			
	4 h	8 h	16 h	24 h
<b>Extract A<sup>1</sup></b>				
1 mg/mL	25.31 $\pm$ 11.61***	10.08 $\pm$ 2.94***	7.73 $\pm$ 2.60***	4.80 $\pm$ 0.67**
2 mg/mL	19.88 $\pm$ 10.23***	7.99 $\pm$ 2.73***	5.70 $\pm$ 1.63***	4.08 $\pm$ 1.78***
4 mg/mL	7.75 $\pm$ 4.58***	2.67 $\pm$ 1.65***	6.78 $\pm$ 2.32***	3.03 $\pm$ 0.92***
<i>p</i> ( <i>r</i> )	0.004 (-0.764)	0.007 (-0.728)	0.014 (-0.685)	0.012 (-0.694)
<b>Extract B<sup>1</sup></b>				
5 $\mu$ g/mL	138.21 $\pm$ 18.99	79.22 $\pm$ 16.12	123.81 $\pm$ 18.85	99.32 $\pm$ 16.16
10 $\mu$ g/mL	134.08 $\pm$ 23.77	94.64 $\pm$ 25.84	134.17 $\pm$ 23.02	89.26 $\pm$ 10.85
20 $\mu$ g/mL	93.33 $\pm$ 2.45	103.58 $\pm$ 27.23	149.92 $\pm$ 21.76	86.91 $\pm$ 13.25
<i>p</i> ( <i>r</i> )	0.528 (-0.202)	0.701 (0.124)	0.065 (0.548)	0.338 (-0.303)
<b>Extract C<sup>1</sup></b>				
5 $\mu$ g/mL	93.87 $\pm$ 12.92	120.41 $\pm$ 53.90	184.78 $\pm$ 58.21	125.03 $\pm$ 30.30
10 $\mu$ g/mL	106.88 $\pm$ 27.26	84.30 $\pm$ 17.05	235.24 $\pm$ 135.19	152.72 $\pm$ 96.67
20 $\mu$ g/mL	104.16 $\pm$ 27.35	89.86 $\pm$ 31.52	149.40 $\pm$ 82.83	114.29 $\pm$ 63.27
<i>p</i> ( <i>r</i> )	0.779 (0.091)	0.645 (-0.149)	0.742 (0.106)	0.873 (0.052)
<b>Extract D<sup>1</sup></b>				
0.5 mg/mL	78.55 $\pm$ 16.91	73.37 $\pm$ 4.30	39.38 $\pm$ 1.42***	58.14 $\pm$ 14.04
1 mg/mL	72.55 $\pm$ 12.17	57.63 $\pm$ 6.11*	43.48 $\pm$ 9.08**	77.20 $\pm$ 17.85
2 mg/mL	40.81 $\pm$ 5.48*	50.25 $\pm$ 13.91*	48.56 $\pm$ 8.93**	104.26 $\pm$ 38.34
<i>p</i> ( <i>r</i> )	0.002 (-0.803)	0.003 (-0.785)	0.067 (-0.454)	0.613 (0.132)

<sup>1</sup> Cell count and viability were determined using the three highest concentrations which did not show cytotoxic effects in the LDH leakage test, starting by the top concentration (see Table 1). Statistical analysis: \*(*p*<0.05), \*\*(*p*<0.01), or \*\*\*(*p*<0.001) indicate significantly different number of cells, as compared with negative control, one-way ANOVA followed by Dunnett's post hoc analysis.

**Table S2.** Effects of various ALEs concentrations on RKO cells vitality. Experimental groups comprised cells treated for 4, 8, 16 and 24 h. Percent of growth is expressed as percent of negative control (taken as unit, 100%). Results of each experimental set are summarized as the mean ( $\pm$  SEM) of three independent experiments.

ALEs	Treatment time			
	4 h	8 h	16 h	24 h
Extract A <sup>1,2</sup>				
1 mg/mL	25.31 $\pm$ 11.61***	10.08 $\pm$ 2.94***	7.73 $\pm$ 2.60***	4.80 $\pm$ 0.67*
2 mg/mL	19.88 $\pm$ 10.23***	7.99 $\pm$ 2.73***	5.70 $\pm$ 1.63***	4.08 $\pm$ 1.78*
4 mg/mL	7.75 $\pm$ 4.58***	2.67 $\pm$ 1.65***	6.78 $\pm$ 2.32***	3.03 $\pm$ 0.92**
<i>p</i> ( <i>r</i> )	0.004 (-0.764)	0.007 (-0.728)	0.014 (-0.685)	0.012 (-0.694)
Extract D <sup>1,2</sup>				
0.5 mg/mL	78.55 $\pm$ 16.91***	73.37 $\pm$ 4.30	39.38 $\pm$ 1.42***	58.14 $\pm$ 14.04***
1 mg/mL	72.55 $\pm$ 12.17***	57.63 $\pm$ 6.11***	43.48 $\pm$ 9.08***	77.20 $\pm$ 17.85***
2 mg/mL	40.81 $\pm$ 5.48***	50.25 $\pm$ 13.91***	48.56 $\pm$ 8.93***	104.26 $\pm$ 38.34***
<i>p</i> ( <i>r</i> )	0.002 (-0.803)	0.003 (-0.785)	0.067 (-0.454)	0.613 (0.132)

<sup>1</sup> Cell count and viability were determined using the three highest concentrations which did not show cytotoxic effects in the LDH leakage test, starting by the top concentration (see Table 1). Statistical analysis: \*(*p*<0.05), \*\*(*p*<0.01), or \*\*\*(*p*<0.001) indicate significantly different number of cells, as compared with negative control, one-way ANOVA followed by Dunnett's post hoc analysis.

**Table S3.** Cell cycle analysis<sup>1</sup> in HT-29 cells exposed to different concentrations of artichoke leaf extract A. Results are expressed as % of cells in the different cell cycle phases; data are summarized as the mean ( $\pm$  SEM) of three independent experiments.

ALEs		4 h	8 h	16 h	24 h
Extract A					
1 mg/mL	Sub-G <sub>1</sub>	7.04 $\pm$ 0.80	5.67 $\pm$ 0.35	9.26 $\pm$ 0.86	29.52 $\pm$ 6.11
	G <sub>0</sub> /G <sub>1</sub>	54.34 $\pm$ 4.20	60.70 $\pm$ 2.59	61.36 $\pm$ 10.29	39.34 $\pm$ 2.04**
	S	31.34 $\pm$ 3.14	26.72 $\pm$ 0.97	22.80 $\pm$ 9.65	25.81 $\pm$ 3.73
	G <sub>2</sub> /M	5.60 $\pm$ 0.76	5.31 $\pm$ 2.01	5.55 $\pm$ 1.47	2.42 $\pm$ 0.59
2 mg/mL	Sub-G <sub>1</sub>	13.77 $\pm$ 2.96	7.59 $\pm$ 0.40	29.48 $\pm$ 3.02**	37.95 $\pm$ 9.17*
	G <sub>0</sub> /G <sub>1</sub>	52.88 $\pm$ 2.43	58.21 $\pm$ 6.43	64.38 $\pm$ 3.92	32.65 $\pm$ 7.16***
	S	26.00 $\pm$ 0.73	26.65 $\pm$ 6.90	1.66 $\pm$ 0.56	21.06 $\pm$ 4.99
	G <sub>2</sub> /M	5.74 $\pm$ 0.76	5.16 $\pm$ 1.24	1.19 $\pm$ 0.76	5.54 $\pm$ 3.81
4 mg/mL	Sub-G <sub>1</sub>	35.57 $\pm$ 14.81*	26.29 $\pm$ 9.15*	13.36 $\pm$ 3.48	40.04 $\pm$ 5.16**
	G <sub>0</sub> /G <sub>1</sub>	44.37 $\pm$ 11.32	46.27 $\pm$ 13.54	76.87 $\pm$ 2.71	31.89 $\pm$ 0.72***
	S	15.38 $\pm$ 1.69	20.38 $\pm$ 13.78	6.27 $\pm$ 4.24	21.54 $\pm$ 7.24
	G <sub>2</sub> /M	4.15 $\pm$ 2.57	0.71 $\pm$ 0.12	1.09 $\pm$ 0.79	1.37 $\pm$ 0.41
DMEM <sup>2</sup>	Sub-G <sub>1</sub>	3.35 $\pm$ 1.58	1.52 $\pm$ 0.43	8.27 $\pm$ 3.06	5.04 $\pm$ 2.53
	G <sub>0</sub> /G <sub>1</sub>	68.02 $\pm$ 2.51	68.57 $\pm$ 7.91	72.26 $\pm$ 6.11	74.97 $\pm$ 7.59
	S	21.69 $\pm$ 3.68	25.30 $\pm$ 7.87	14.27 $\pm$ 4.98	13.06 $\pm$ 3.06
	G <sub>2</sub> /M	4.50 $\pm$ 0.61	3.41 $\pm$ 0.50	4.04 $\pm$ 2.95	6.13 $\pm$ 3.08
Extract B					
5 $\mu$ g/mL	Sub-G <sub>1</sub>	8.12 $\pm$ 0.43*	14.57 $\pm$ 4.03	13.21 $\pm$ 1.62	13.39 $\pm$ 0.98
	G <sub>0</sub> /G <sub>1</sub>	60.39 $\pm$ 0.76	53.50 $\pm$ 5.63	60.95 $\pm$ 5.77	63.24 $\pm$ 1.07
	S	11.66 $\pm$ 1.18	13.51 $\pm$ 0.63	15.65 $\pm$ 2.28	14.28 $\pm$ 0.61
	G <sub>2</sub> /M	9.32 $\pm$ 0.71*	7.76 $\pm$ 1.98	6.55 $\pm$ 0.75	6.79 $\pm$ 0.99
10 $\mu$ g/mL	Sub-G <sub>1</sub>	8.73 $\pm$ 0.90*	12.93 $\pm$ 2.36	10.99 $\pm$ 1.08	11.29 $\pm$ 0.33
	G <sub>0</sub> /G <sub>1</sub>	55.64 $\pm$ 1.05*	55.09 $\pm$ 2.61	64.86 $\pm$ 4.5	62.70 $\pm$ 0.90
	S	10.98 $\pm$ 1.33	13.19 $\pm$ 1.84	15.44 $\pm$ 3.38	16.10 $\pm$ 0.90
	G <sub>2</sub> /M	8.14 $\pm$ 0.59**	12.05 $\pm$ 2.44	7.34 $\pm$ 0.44	7.33 $\pm$ 0.39
20 $\mu$ g/mL	Sub-G <sub>1</sub>	1.11 $\pm$ 1.66***	15.81 $\pm$ 3.00	11.28 $\pm$ 1.29	16.98 $\pm$ 0.03*
	G <sub>0</sub> /G <sub>1</sub>	53.24 $\pm$ 1.71**	53.33 $\pm$ 2.41	68.72 $\pm$ 0.45	62.85 $\pm$ 1.68
	S	8.32 $\pm$ 0.86*	10.72 $\pm$ 1.23*	9.83 $\pm$ 2.02	9.84 $\pm$ 3.68
	G <sub>2</sub> /M	7.13 $\pm$ 0.29**	14.00 $\pm$ 2.44	7.39 $\pm$ 2.70	9.27 $\pm$ 2.61
DMSO <sup>2</sup>	Sub-G <sub>1</sub>	3.36 $\pm$ 0.21	4.11 $\pm$ 1.52	8.47 $\pm$ 3.38	7.59 $\pm$ 2.64
	G <sub>0</sub> /G <sub>1</sub>	63.13 $\pm$ 1.77	71.44 $\pm$ 5.94	70.34 $\pm$ 4.90	75.23 $\pm$ 9.50
	S	17.75 $\pm$ 2.91	16.22 $\pm$ 0.20	14.55 $\pm$ 1.31	10.25 $\pm$ 3.93
	G <sub>2</sub> /M	13.85 $\pm$ 1.49	6.42 $\pm$ 3.57	5.31 $\pm$ 2.01	5.83 $\pm$ 2.53
Extract C					
5 $\mu$ g/mL	Sub-G <sub>1</sub>	8.88 $\pm$ 1.48	12.76 $\pm$ 2.78	11.51 $\pm$ 1.18***	12.14 $\pm$ 1.73
	G <sub>0</sub> /G <sub>1</sub>	59.79 $\pm$ 0.74	62.85 $\pm$ 0.64	62.51 $\pm$ 1.12***	59.10 $\pm$ 0.89*
	S	13.25 $\pm$ 1.11	11.99 $\pm$ 1.32	17.64 $\pm$ 0.12	19.15 $\pm$ 1.56
	G <sub>2</sub> /M	9.63 $\pm$ 1.11	8.62 $\pm$ 0.79	7.16 $\pm$ 0.55*	7.33 $\pm$ 1.45
10 $\mu$ g/mL	Sub-G <sub>1</sub>	8.90 $\pm$ 0.31	15.4 $\pm$ 5.00	12.53 $\pm$ 0.38***	12.40 $\pm$ 1.57
	G <sub>0</sub> /G <sub>1</sub>	63.72 $\pm$ 4.05	53.9 $\pm$ 5.93	63.49 $\pm$ 0.74***	59.19 $\pm$ 2.20*
	S	12.36 $\pm$ 0.65	17.14 $\pm$ 1.56	16.46 $\pm$ 1.46	18.92 $\pm$ 2.45
	G <sub>2</sub> /M	8.39 $\pm$ 0.27	8.14 $\pm$ 2.98	6.00 $\pm$ 0.51	8.08 $\pm$ 0.73
20 $\mu$ g/mL	Sub-G <sub>1</sub>	10.16 $\pm$ 1.55*	13.58 $\pm$ 0.27	13.28 $\pm$ 0.66***	13.24 $\pm$ 1.12
	G <sub>0</sub> /G <sub>1</sub>	62.38 $\pm$ 1.04	53.46 $\pm$ 2.39	63.79 $\pm$ 1.71***	65.00 $\pm$ 0.82
	S	12.78 $\pm$ 1.37	12.88 $\pm$ 1.84	14.90 $\pm$ 1.34	13.94 $\pm$ 0.34
	G <sub>2</sub> /M	11.86 $\pm$ 1.14	7.36 $\pm$ 1.92	6.23 $\pm$ 0.47	7.63 $\pm$ 0.19
DMSO <sup>2</sup>	Sub-G <sub>1</sub>	4.41 $\pm$ 0.57	4.08 $\pm$ 0.98	3.57 $\pm$ 1.22	8.98 $\pm$ 2.47
	G <sub>0</sub> /G <sub>1</sub>	54.19 $\pm$ 3.42	64.79 $\pm$ 1.67	75.04 $\pm$ 1.66	67.66 $\pm$ 2.10
	S	12.04 $\pm$ 3.99	15.53 $\pm$ 0.44	15.77 $\pm$ 2.09	14.16 $\pm$ 1.48
	G <sub>2</sub> /M	11.81 $\pm$ 1.09	13.38 $\pm$ 1.79	4.39 $\pm$ 0.87	7.43 $\pm$ 0.82
Extract D					
0.5 mg/mL	Sub-G <sub>1</sub>	8.51 $\pm$ 4.26	12.53 $\pm$ 6.45	35.24 $\pm$ 8.33*	33.86 $\pm$ 4.94**
	G <sub>0</sub> /G <sub>1</sub>	50.81 $\pm$ 1.76*	47.09 $\pm$ 1.73	47.42 $\pm$ 10.89	55.84 $\pm$ 5.49
	S	7.75 $\pm$ 1.80	8.88 $\pm$ 0.84	7.71 $\pm$ 0.74	7.28 $\pm$ 0.43
	G <sub>2</sub> /M	3.85 $\pm$ 0.11	9.28 $\pm$ 0.47	4.06 $\pm$ 0.83	1.14 $\pm$ 0.33***
1 mg/mL	Sub-G <sub>1</sub>	8.97 $\pm$ 4.49	5.51 $\pm$ 2.80	20.98 $\pm$ 4.02	20.99 $\pm$ 0.19
	G <sub>0</sub> /G <sub>1</sub>	42.8 $\pm$ 2.37**	56.23 $\pm$ 1.77	56.69 $\pm$ 4.30	55.50 $\pm$ 8.23
	S	5.69 $\pm$ 0.73	9.60 $\pm$ 2.84	10.45 $\pm$ 2.09	17.97 $\pm$ 7.75
	G <sub>2</sub> /M	5.64 $\pm$ 0.81	19.72 $\pm$ 0.64	3.24 $\pm$ 2.36	2.70 $\pm$ 0.39**
2 mg/mL	Sub-G <sub>1</sub>	8.23 $\pm$ 4.19	6.29 $\pm$ 3.21	8.52 $\pm$ 1.13	27.74 $\pm$ 6.35*

	G <sub>0</sub> /G <sub>1</sub>	44.72 ± 0.01**	54.71 ± 0.91	74.61 ± 3.25	57.21 ± 2.51
	S	8.63 ± 0.80	9.58 ± 1.09	15.04 ± 1.62	12.74 ± 6.03
	G <sub>2</sub> /M	6.77 ± 2.40	21.34 ± 0.21	0.78 ± 0.09	1.18 ± 0.70***
DMEM <sup>2</sup>	Sub-G <sub>1</sub>	5.04 ± 1.51	3.30 ± 1.79	6.98 ± 3.90	6.77 ± 2.75
	G <sub>0</sub> /G <sub>1</sub>	60.30 ± 1.59	68.35 ± 8.38	71.34 ± 2.29	66.04 ± 2.53
	S	18.86 ± 4.67	15.35 ± 3.29	16.12 ± 3.86	14.57 ± 1.82
	G <sub>2</sub> /M	9.91 ± 4.39	11.91 ± 4.75	4.44 ± 1.34	11.02 ± 2.07

<sup>1</sup> Cell cycle analysis was performed using the three highest concentrations which did not show cytotoxic effects in the LDH leakage test, starting by the top concentration (see Table 1). <sup>2</sup> Negative control. Statistical analysis: \*( $p<0.05$ ), \*\*( $p<0.01$ ), or \*\*\*( $p<0.001$ ) indicate significantly different number of cells, as compared with negative control, one-way ANOVA followed by Dunnett's post hoc analysis.

**Table S4.** Cell cycle analysis in RKO cells exposed to different concentration of artichoke leaf extract A. Results are expressed as % of cells in the different cell cycle phases; data are summarized as the mean ( $\pm$  SEM) of three independent experiments.

ALEs		4 h	8 h	16 h	24 h
Extract A					
1 mg/mL	Sub-G <sub>1</sub>	25.12 $\pm$ 10.10	43.17 $\pm$ 1.20***	10.14 $\pm$ 1.35	28.17 $\pm$ 0.59***
	G <sub>0</sub> /G <sub>1</sub>	59.36 $\pm$ 9.66	39.90 $\pm$ 1.73	51.54 $\pm$ 1.43***	38.67 $\pm$ 0.13***
	S	5.86 $\pm$ 1.02***	7.38 $\pm$ 1.12***	20.49 $\pm$ 2.15	18.26 $\pm$ 0.79
	G <sub>2</sub> /M	9.67 $\pm$ 0.57	9.66 $\pm$ 0.53***	17.82 $\pm$ 2.07	14.90 $\pm$ 1.51***
2 mg/mL	Sub-G <sub>1</sub>	42.86 $\pm$ 1.01*	35.67 $\pm$ 2.73***	36.07 $\pm$ 2.92***	48.40 $\pm$ 2.07***
	G <sub>0</sub> /G <sub>1</sub>	47.06 $\pm$ 1.70	49.35 $\pm$ 3.44	32.75 $\pm$ 0.02***	28.13 $\pm$ 1.33***
	S	4.02 $\pm$ 0.05***	6.96 $\pm$ 0.59***	16.12 $\pm$ 2.74	18.95 $\pm$ 2.17
	G <sub>2</sub> /M	6.07 $\pm$ 0.74	8.16 $\pm$ 0.18***	15.07 $\pm$ 0.20	4.52 $\pm$ 1.43***
4 mg/mL	Sub-G <sub>1</sub>	61.79 $\pm$ 3.79***	54.19 $\pm$ 0.03***	58.23 $\pm$ 0.26***	5.94 $\pm$ 0.07
	G <sub>0</sub> /G <sub>1</sub>	29.96 $\pm$ 1.95**	34.94 $\pm$ 0.49*	22.87 $\pm$ 0.23***	42.04 $\pm$ 1.37***
	S	3.30 $\pm$ 0.77***	5.28 $\pm$ 0.05***	12.59 $\pm$ 0.35	28.35 $\pm$ 1.29**
	G <sub>2</sub> /M	4.96 $\pm$ 1.40	5.73 $\pm$ 0.39***	6.32 $\pm$ 0.84***	23.69 $\pm$ 0.48
DMEM <sup>2</sup>	Sub-G <sub>1</sub>	11.89 $\pm$ 3.76	10.54 $\pm$ 0.73	3.64 $\pm$ 0.48	2.79 $\pm$ 0.38
	G <sub>0</sub> /G <sub>1</sub>	64.98 $\pm$ 3.72	42.88 $\pm$ 0.59	60.01 $\pm$ 0.55	52.17 $\pm$ 0.29
	S	15.01 $\pm$ 0.43	29.02 $\pm$ 1.05	17.98 $\pm$ 0.24	18.35 $\pm$ 0.27
	G <sub>2</sub> /M	7.84 $\pm$ 0.27	17.14 $\pm$ 0.31	15.99 $\pm$ 0.19	25.89 $\pm$ 0.37
Extract D					
0.5 mg/mL	Sub-G <sub>1</sub>	33.46 $\pm$ 1.95***	26.89 $\pm$ 1.93**	14.81 $\pm$ 2.17***	14.91 $\pm$ 2.87**
	G <sub>0</sub> /G <sub>1</sub>	50.00 $\pm$ 4.56*	58.14 $\pm$ 2.68**	11.70 $\pm$ 1.17**	18.87 $\pm$ 0.06***
	S	6.14 $\pm$ 0.51***	6.84 $\pm$ 0.19***	9.55 $\pm$ 0.28*	11.44 $\pm$ 1.17*
	G <sub>2</sub> /M	10.41 $\pm$ 2.10	8.25 $\pm$ 0.88***	3.75 $\pm$ 0.59	2.87 $\pm$ 0.49
1 mg/mL	Sub-G <sub>1</sub>	24.45 $\pm$ 0.93*	12.01 $\pm$ 3.05	37.03 $\pm$ 2.22***	51.16 $\pm$ 0.08
	G <sub>0</sub> /G <sub>1</sub>	61.86 $\pm$ 0.81	72.29 $\pm$ 2.62***	48.39 $\pm$ 1.10*	47.85 $\pm$ 0.20
	S	5.55 $\pm$ 1.07***	9.51 $\pm$ 2.13***	47.12 $\pm$ 5.27*	64.90 $\pm$ 3.72**
	G <sub>2</sub> /M	8.15 $\pm$ 1.18	6.21 $\pm$ 1.71***	60.90 $\pm$ 0.84	52.02 $\pm$ 0.21
2 mg/mL	Sub-G <sub>1</sub>	25.84 $\pm$ 1.95**	18.14 $\pm$ 4.32	24.99 $\pm$ 0.65*	31.30 $\pm$ 2.55**
	G <sub>0</sub> /G <sub>1</sub>	61.13 $\pm$ 2.04	62.07 $\pm$ 3.15**	22.71 $\pm$ 2.25	31.32 $\pm$ 0.70**
	S	6.31 $\pm$ 0.36***	5.68 $\pm$ 0.41***	29.33 $\pm$ 1.71**	19.56 $\pm$ 3.02
	G <sub>2</sub> /M	6.82 $\pm$ 0.22	14.12 $\pm$ 0.76	18.69 $\pm$ 0.15	18.47 $\pm$ 0.20
DMEM <sup>2</sup>	Sub-G <sub>1</sub>	12.11 $\pm$ 3.69	10.86 $\pm$ 0.65	23.19 $\pm$ 3.73	2.64 $\pm$ 0.24***
	G <sub>0</sub> /G <sub>1</sub>	65.09 $\pm$ 3.91	43.19 $\pm$ 0.61	17.20 $\pm$ 2.33	1.96 $\pm$ 0.44***
	S	14.94 $\pm$ 0.44	28.83 $\pm$ 1.54	14.42 $\pm$ 3.61	4.12 $\pm$ 1.86***
	G <sub>2</sub> /M	7.87 $\pm$ 0.20	17.25 $\pm$ 0.20	16.67 $\pm$ 0.10	26.65 $\pm$ 0.48

<sup>1</sup> Cell cycle analysis was performed using the three highest concentrations which did not show cytotoxic effects in the LDH leakage test, starting by the top concentration (see Table 1). <sup>2</sup> Negative control. Statistical analysis: \*( $p$ <0.05), \*\*( $p$ <0.01), or \*\*\*( $p$ <0.001) indicate significantly different number of cells, as compared with negative control, one-way ANOVA followed by Dunnett's post hoc analysis.

**Table S5.** Effects of various ALEs concentrations on early (mitochondrial membrane depolarization;  $\Delta\Psi_m$ ) and late (DNA fragmentation) apoptosis induction in HT-29 cells. Experimental groups comprised cells treated for 4, 8, 16 and 24 h. Results are expressed as percent of apoptotic cells, experimental sets are summarized as the mean ( $\pm$  SEM) of three independent experiments.

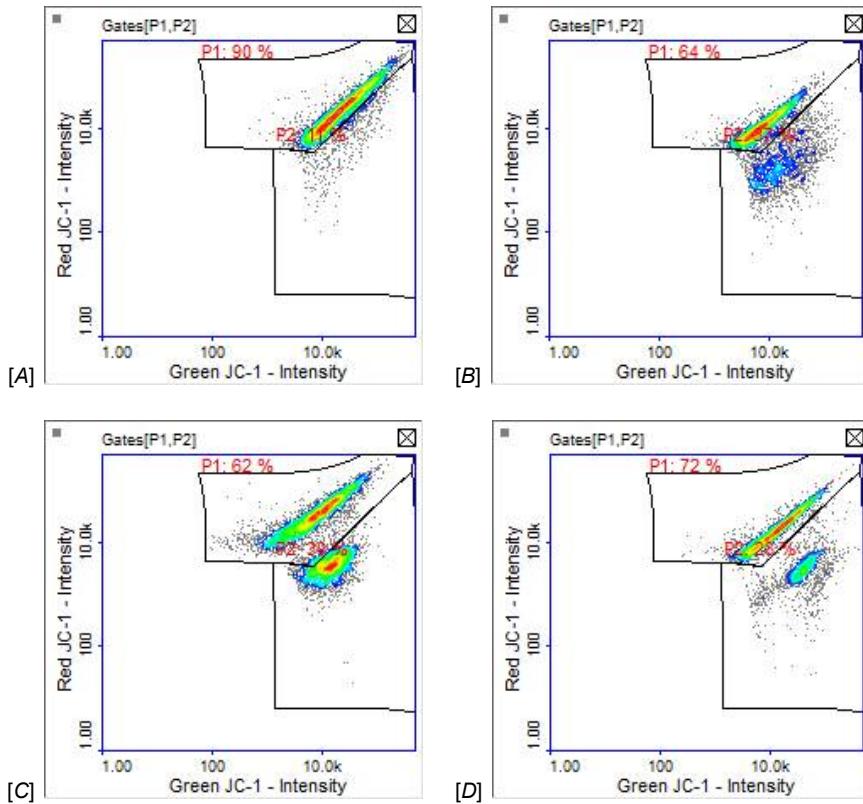
ALEs	$\Delta\Psi_m$ (Early apoptosis) <sup>1</sup>				DNA fragmentation (Late apoptosis) <sup>1</sup>			
	4 h	8 h	16 h	24 h	4 h	8 h	16 h	24 h
Extract A								
1 mg/mL	26.19 $\pm$ 7.11	12.24 $\pm$ 3.02	28.51 $\pm$ 9.95	3.81 $\pm$ 1.83	9.45 $\pm$ 0.51	9.76 $\pm$ 1.74	19.89 $\pm$ 2.12	36.35 $\pm$ 3.87
2 mg/mL	1.59 $\pm$ 0.35	3.56 $\pm$ 2.20	10.86 $\pm$ 2.53	1.47 $\pm$ 0.39*	18.90 $\pm$ 4.63	17.67 $\pm$ 5.21	64.29 $\pm$ 16.06*	72.83 $\pm$ 2.14**
4 mg/mL	1.75 $\pm$ 0.36	2.13 $\pm$ 0.91*	4.04 $\pm$ 1.74	3.38 $\pm$ 1.13*	47.25 $\pm$ 15.66*	71.29 $\pm$ 7.37***	54.15 $\pm$ 20.18	55.78 $\pm$ 19.64*
DMEM <sup>2</sup>	12.08 $\pm$ 1.27	11.82 $\pm$ 1.51	8.08 $\pm$ 0.78	9.60 $\pm$ 2.01	8.19 $\pm$ 1.08	3.54 $\pm$ 0.67	7.49 $\pm$ 4.51	6.52 $\pm$ 1.48
Extract B								
5 $\mu$ g/mL	9.35 $\pm$ 1.93	10.98 $\pm$ 1.38	12.51 $\pm$ 0.95**	12.09 $\pm$ 3.32	9.25 $\pm$ 1.17*	18.73 $\pm$ 5.37*	16.10 $\pm$ 2.03***	15.78 $\pm$ 0.70**
10 $\mu$ g/mL	14.36 $\pm$ 1.11	10.22 $\pm$ 0.83	14.80 $\pm$ 1.20***	9.91 $\pm$ 2.73	11.12 $\pm$ 0.04**	15.42 $\pm$ 1.35	13.44 $\pm$ 1.10**	14.67 $\pm$ 0.44*
20 $\mu$ g/mL	14.37 $\pm$ 3.77	14.97 $\pm$ 4.81	14.23 $\pm$ 1.51**	12.53 $\pm$ 2.89	14.42 $\pm$ 1.04***	20.00 $\pm$ 2.13*	13.37 $\pm$ 0.81**	20.76 $\pm$ 2.35***
DMSO <sup>3</sup>	15.45 $\pm$ 1.29	11.28 $\pm$ 3.37	5.87 $\pm$ 0.53	9.31 $\pm$ 1.60	4.74 $\pm$ 0.95	4.37 $\pm$ 0.29	5.72 $\pm$ 0.68	8.04 $\pm$ 1.00
Extract C								
5 $\mu$ g/mL	11.34 $\pm$ 0.46*	11.02 $\pm$ 3.84	18.17 $\pm$ 4.79*	12.32 $\pm$ 2.49	9.85 $\pm$ 0.94	14.85 $\pm$ 2.64	13.54 $\pm$ 0.86**	16.47 $\pm$ 2.26*
10 $\mu$ g/mL	11.32 $\pm$ 0.64*	10.90 $\pm$ 4.45	9.36 $\pm$ 1.03	11.78 $\pm$ 3.14	10.51 $\pm$ 0.41	17.81 $\pm$ 5.15*	14.12 $\pm$ 1.54***	17.05 $\pm$ 2.44*
20 $\mu$ g/mL	11.68 $\pm$ 0.82*	11.64 $\pm$ 1.68	11.26 $\pm$ 0.63	11.53 $\pm$ 3.39	11.35 $\pm$ 1.20*	16.12 $\pm$ 1.66	15.55 $\pm$ 0.22***	14.77 $\pm$ 1.02*
DMSO <sup>3</sup>	7.78 $\pm$ 1.03	13.87 $\pm$ 1.59	5.51 $\pm$ 0.03	10.02 $\pm$ 1.25	7.25 $\pm$ 1.09	5.53 $\pm$ 0.74	6.57 $\pm$ 0.59	7.14 $\pm$ 1.40
Extract D								
0.5 mg/mL	42.49 $\pm$ 2.50***	26.64 $\pm$ 2.95*	75.04 $\pm$ 1.63***	84.22 $\pm$ 1.11***	18.44 $\pm$ 3.56**	22.99 $\pm$ 3.01*	39.52 $\pm$ 5.56***	46.50 $\pm$ 3.61***
1 mg/mL	43.85 $\pm$ 5.55***	39.78 $\pm$ 2.79***	55.17 $\pm$ 10.32**	74.27 $\pm$ 2.04***	18.31 $\pm$ 1.15**	20.53 $\pm$ 8.16	35.94 $\pm$ 0.43***	40.47 $\pm$ 1.88***
2 mg/mL	35.55 $\pm$ 3.25**	34.36 $\pm$ 5.79**	50.84 $\pm$ 3.37**	82.75 $\pm$ 1.45***	16.69 $\pm$ 1.76**	15.95 $\pm$ 1.83	14.52 $\pm$ 2.54	32.45 $\pm$ 0.41***
DMEM <sup>2</sup>	8.13 $\pm$ 1.94	9.00 $\pm$ 1.43	14.31 $\pm$ 1.13	8.57 $\pm$ 1.01	3.65 $\pm$ 1.02	3.81 $\pm$ 0.15	4.35 $\pm$ 0.59	4.73 $\pm$ 0.26
Positive controls:								
Valinomycin <sup>4</sup>	39.72 $\pm$ 5.46	54.91 $\pm$ 9.62	63.47 $\pm$ 6.53	73.19 $\pm$ 4.70	7.55 $\pm$ 1.02	14.89 $\pm$ 1.63	29.64 $\pm$ 3.21	38.03 $\pm$ 5.59
Staurosporine <sup>5</sup>								

<sup>1</sup> Early and late apoptosis were determined using the three highest concentrations which did not show cytotoxic effects in the LDH leakage test, starting by the top concentration (see Table 1). <sup>2,3</sup> Negative control for samples A and D, and B and C, respectively. <sup>4,5</sup> Positive control for early and late apoptosis, respectively. Statistical analysis: \*( $p$ <0.05), \*\*( $p$ <0.01), or \*\*\*( $p$ <0.001) indicate significantly differences, as compared with control cells, one-way ANOVA followed by Dunnett's post hoc analysis.

**Table S6.** Effects of various ALEs concentrations on early (mitochondrial membrane depolarization;  $\Delta\Psi m$ ) and late (DNA fragmentation) apoptosis induction in RKO cells. Experimental groups comprised cells treated for 4, 8, 16 and 24 h. Results are expressed as percent of apoptotic cells, experimental sets are summarized as the mean ( $\pm$  SEM) of three independent experiments.

ALEs	$\Delta\Psi m$ (Early apoptosis) <sup>1</sup>				DNA fragmentation (Late apoptosis) <sup>1</sup>			
	4 h	8 h	16 h	24 h	4 h	8 h	16 h	24 h
Extract A								
1 mg/mL	34.81 $\pm$ 1.61***	32.89 $\pm$ 0.14	36.90 $\pm$ 0.50	56.72 $\pm$ 3.28***	23.65 $\pm$ 6.49	43.16 $\pm$ 2.29***	18.81 $\pm$ 2.72**	43.43 $\pm$ 0.33***
2 mg/mL	10.21 $\pm$ 4.34	61.39 $\pm$ 4.58**	3.67 $\pm$ 0.83	7.45 $\pm$ 0.57	44.12 $\pm$ 0.45***	34.91 $\pm$ 2.88***	47.94 $\pm$ 3.11***	62.14 $\pm$ 3.46***
4 mg/mL	1.96 $\pm$ 0.30	46.69 $\pm$ 8.50*	24.44 $\pm$ 11.04	39.70 $\pm$ 9.85*	60.45 $\pm$ 4.07***	51.91 $\pm$ 0.53***	66.32 $\pm$ 0.46***	10.28 $\pm$ 0.13
DMEM <sup>2</sup>	7.58 $\pm$ 1.91	23.80 $\pm$ 2.47	17.73 $\pm$ 2.84	13.53 $\pm$ 1.84	11.30 $\pm$ 3.33	10.10 $\pm$ 0.29	6.01 $\pm$ 0.92	4.90 $\pm$ 1.44
Extract D								
0.5 mg/mL	35.50 $\pm$ 4.51**	56.46 $\pm$ 1.46***	87.67 $\pm$ 5.48***	92.91 $\pm$ 2.18***	30.32 $\pm$ 2.87***	25.54 $\pm$ 1.48**	19.78 $\pm$ 0.10***	22.78 $\pm$ 3.25**
1 mg/mL	31.27 $\pm$ 4.56**	80.81 $\pm$ 2.31***	94.67 $\pm$ 1.84***	98.62 $\pm$ 0.04***	23.43 $\pm$ 0.77*	12.09 $\pm$ 2.52	17.43 $\pm$ 2.13***	15.08 $\pm$ 4.28
2 mg/mL	34.69 $\pm$ 2.62**	73.14 $\pm$ 5.59***	97.87 $\pm$ 0.59***	85.89 $\pm$ 2.26***	25.44 $\pm$ 1.91**	18.84 $\pm$ 4.49	15.30 $\pm$ 1.76**	11.58 $\pm$ 0.84
DMEM <sup>2</sup>	7.67 $\pm$ 1.72	22.75 $\pm$ 2.06	16.71 $\pm$ 2.25	12.98 $\pm$ 1.95	11.47 $\pm$ 2.31	10.05 $\pm$ 0.58	5.99 $\pm$ 1.03	4.87 $\pm$ 1.79
Positive controls:								
Valinomycin <sup>3</sup>	21.79 $\pm$ 8.56	33.88 $\pm$ 0.64	29.34 $\pm$ 8.13	33.88 $\pm$ 6.68	39.78 $\pm$ 6.37	50.73 $\pm$ 1.55	71.48 $\pm$ 6.90	67.26 $\pm$ 1.81
Staurosporine <sup>4</sup>								

<sup>1</sup> Early and late apoptosis were determined using the three highest concentrations which did not show cytotoxic effects in the LDH leakage test, starting by the top concentration (see Table 1). <sup>2</sup> Negative control. <sup>3,4</sup> Positive control for early and late apoptosis, respectively. Statistical analysis: \*( $p<0.05$ ), \*\*( $p<0.01$ ), or \*\*\*( $p<0.001$ ) indicate significantly differences, as compared with control cells, one-way ANOVA followed by Dunnett's post hoc analysis.



**Figure S1.** Determination of apoptosis (early events) by evaluation of mitochondrial membrane potential ( $\Delta\Psi_m$ ). Green and red fluorescence of the viable cells displayed in scatterplots: [A] negative control; [B] positive control (0.5 µM valinomycin); [C], [D] artichoke leaf extracts A (1 mg/mL), and D (0.5 mg/mL), respectively.