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SUPPLEMANTARY MATERIAL

Phytochemical constituents and antioxidant activity of *Ricinus communis Linn* leaf and seeds extracts

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Figure S1: GC-MS Chromatogram of *R.communis L.* leaves methanol extract (Ref. [23]).

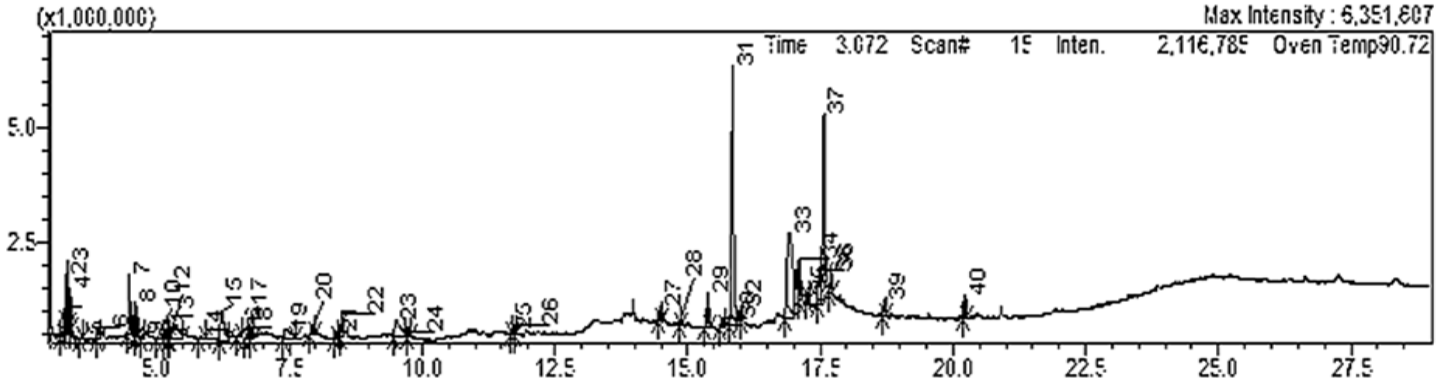

Table S1. GC-MS analysis (separated compounds, retention time, peak area, molecular weight, molecular formula and fragmentation ions).

ID NO.	Name	R.Time (m)	Area %	M.W	Molecular Formula	Fragmentation ions [m\z]
1	n-hexadecanoic acid	15.85	22.02	256	$C_{16}H_{32}O_2$	43,60,73,85,98,115,129,143,157,171,185,199,213,227,239,256,269,281,297,309,327,338,355,376,403,442,475,490,504,529,553,574,590.
2	4-methoxy-1-methyl-2-oxo-1,2-dihydropyridine-3-carbonitrile	16.92	17.41	164	$C_8H_8N_2O_2$	40,42,66,82,94,105,121,135,149,164,178,195,207,229,249,264,281,387,403,415,429,447,470,491,505,522.
3	Gamolenic Acid	17.57	10.40	278	$C_{18}H_{30}O_2$	40,41,55,67,79,93,108,121,135,149,163,191,209,222,235,249,261,278,294,308,327,341,355,373,405,429,452,585.
4	2,3-dihydro-3,5-dihydroxy-6-methyl-4H-pyran-4-one	6.22	4.84	144	$C_6H_8O_4$	40,43,56,72,85,101,115,126,144,157,170,195,210,231,248,267,283,355,413,447,459,483,517,529,547,560.
5	2-pyrrolidinone	5.32	3.98	85	C_4H_7NO	40,41,56,72,85,99,121,145,194,281,298,320,342,363,383,402,431,511.
6	2-methyl-N (2-methyl-butylidene)-1-butanamine	3.32	3.32	155	$C_{10}H_{21}N$	40,41,43,56,71,84,98,112,126,140,154,179,207,225,238,254,391,417,430,445,463,476,492,5

						05,518,533.
7	L-proline, 5-oxo-, methyl ester	9.52	3.23	143	$C_6H_9NO_3$	40,41,55,83,84,100,115,136,158,179,191,312,226,252,271,431,445,457,487,506,525,547,562.
8	(Z,Z)- 9,12 Octadecadienoic acid	17.48	3.18	280	$C_{18}H_{32}O_2$	40,41,54,67,81,95,109,123,136,150,164,182,196,222,238,262,280,299,316,333,358,377,396,410,438,452.
9	1-propyl-2-pyrrolidinone	4.49	2.83	127	$C_7H_{13}NO$	43,69,70,84,98,113,127,140,154,202,234,249,267,283,295,313,327,341,353,367,378,392,526,544,564,586.
10	(Z,Z,Z)- 9,12,15-Octadecatrienoic acid, methyl ester	17.10	2.36	292	$C_{19}H_{32}O_2$	41,55,67,79,93,108,121,135,149,163,173,191,203,217,236,249,261,292,362,373,390,401,415,429,443,456,466,479,498,524.
11	4-hydroxybutanoic acid	3.21	2.10	104	$C_4H_8O_3$	56,83,86,104,116,305,327,341,355,369,389,407,422,439.
12	2,3-dihydro-Benzofuran	7.44	2.03	120	C_8H_8O	40,51,65,78,91,105,120,139,165,185,207,225,251,417,430,446,462,484,506,518,534.
13	2-methoxy-4-vinylphenol	8.48	1.97	150	$C_9H_{10}O_2$	40,51,63,77,91,107,121,135,150,154,180,194,207,224,253,387,405,415,429,447,459,477,49

						1,505.
14	N-(2-Methylbutylidene)-isobutylamine	3.28	1.96	141	$C_9H_{19}N$	40,41,42,57,70,84,98,113,126,140,237,249,274,296,308,327,341,355,381,527,543,565,585,597.
15	Hexadecanoic acid methyl ester	15.38	1.82	270	$C_{17}H_{34}O_2$	40,41,43,57,74,87,101,114,129,143,157,171,185,199,213,227,239,255,270,280,313,327,341,355,369,385,401,415,429,449,463,478.
16	2,3-dimethyl piperidine	4.61	1.65	113	$C_7H_{15}N$	40,41,42,56,70,84,98,113,126,140,154,171,209,226,387,401,415,429,447,462,479,491,505
17	piperidine -4,4-diol	3.37	1.62	99	$C_5H_{11}NO_2$	41,42,56,82,84,99,124,126,140,161,175,191,203,221,249,269,282,294,308,472,503,524,546,561,575,591.
18	2,4-dihydroxy-2,5-dimethyl-3(2H)-furan-3-one	3.88	1.36	144	$C_6H_8O_4$	43,56,73,95,101,122,133,144,167,179,193,208,234,253,268,281,429,445,461,482,493,511,522,551,562.
19	Fumaric acid, 2-dimethylamino-ethyl nonyl ester	20.21	1.29	313	$C_{17}H_{31}NO_4$	40, 55, 58, 71, 91, 105, 119, 131, 144, 158, 174, 192, 209, 227, 254, 278, 294, 320, 349, 373, 399, 420, 434,

						448.
20	Octadecanoic acid	17.70	1.12	284	$C_{18}H_{36}O_2$	41,43,57,73,87,98,115,129,143,157,157,171,185,199,213,227,241,255,267,284,303,316,343,355,401,413,429,450,466
21	Cis-vaccenic acid	15.65	0.85	282	$C_{18}H_{34}O_2$	40,41,55,69,83,98,124,138,140,154,179,193,207,236,254,277,302,318,341,355,377,389,404,424,440,452,468,597.
22	2,5-dimethyl-4-hydroxy-3(2H)-furanone	5.06	0.78	128	$C_6H_8O_3$	40,43,57,72,85,105,128,263,279,293,307,327,341,355,383,407,554,572.
23	3-cyclopentylpropionic acid, 2-dimethylaminoethyl ester	18.70	0.74	213	$C_{12}H_{23}NO_2$	40,58,71,90,99,113,131,144,159,172,186,200,214,227,239,256,269,283,299,326,342,377.
24	1-Heneicosanol	16.01	0.70	312	$C_{21}H_{44}O$	40,41,55,83,97,111,125,139,153,167,182,196,210,224,238,252,280,307,388,404,418,430,446,468,482,496,522,546.
25	Phytol, acetate	14.47	0.67	338	$C_{22}H_{42}O_2$	40,41,68,82,95,109,123,150,163,179,206,327,346,357,

						377,389,401,428,446,461,478,494.
26	Dihydro-3-hydroxy-4,4-dimethyl-, (.+/-.)-2(3H)-furanone	4.74	0.58	130	$C_6H_{10}O_3$	40,41,43,57,71,91,109,126,195,222,248,264,276,297,327,341,503,515,528,549,581.
27	2-(phenylmethyl)piperidine	8.37	0.56	175	$C_{12}H_{17}N$	41,55,82,84,105,117,132,147,163,175,164,207,220,240,255,267,281,295,310,327,346,371,383,455,473,489,509,523,540,551,562,575.
28	Arginine, N(2)-p-toluenesulfonyl-, t-butyl ester	7.93	0.55	384	$C_{17}H_{28}N_4O_4S$	55,59,70,91,100,112,128,143,157,170,246,275,295,313,331,355,385,553,572,586.
29	N-phenethyl-2-methylbutylidenimine	9.73	0.54	189	$C_{13}H_{19}N$	40,41,42,56,70,84,98,114,127,147,161,174,187,209,253,269,281,307,327,346,366,379,392,542,557,584,600.
30	1-acetyl-1,2,3,4-tetrahydro-pyridine	6.79	0.40	125	$C_7H_{11}NO$	43,68,82,84,110,125,126,195,222,233,250,265,282,295,311,327,341,356,486,500,512,524,540,561,579.
31	Piperidine	3.58	0.39	85	$C_5H_{11}N$	40,41,55,70,84,100,162,184,204,216,230,250,265,279,295,310,325,341,355,489,503,517,537,559,585.

32	Phytol	17.24	0.39	296	$C_{20}H_{40}O$	41,57,71,95,111,123,126,151,179,196,218,234,263,278,299,326,399,353.
33	(E)-3-octadecene	11.74	0.36	252	$C_{18}H_{36}$	40,41,55,83,97,111,125,140,154,168,196,316,329,341,355,371,389,405,429,450,463.
34	1-acetyl-4-methylpiperazine	5.83	0.32	142	$C_7H_{14}N_2O$	40,41,68,70,84,100,112,130,145,156,173,185,335,349,375,391,407,429,449,465,479.
35	2-(1-methylpropyl)-bicyclo[2.2.1]heptane	6.69	0.29	152	$C_{11}H_{20}$	40,41,44,67,81,95,109,123,137,151,164,179,191,207,223,235,253,267,398,420,434,460,482,496,508,526,558.
36	8-octadecanone	14.88	0.28	268	$C_{18}H_{36}O$	40,41,43,57,71,85,110,127,142,155,170,183,198,211,227,244,274,290,304,325,338,356,384,396,527,545,569,586.
37	4-hydroxy-3-(2-furfuryl)-4-methyl-5-spirocyclohexane-oxazolidin-2-one	6.56	0.25	265	$C_{14}H_{19}NO_4$	40,53,59,81,84,98,123,137,156,171,209,346,364,377,390,404,415,429,446,466,478,492.
38	3-ethyl-2,5-dimethyl-pyrazine	5.15	0.22	136	$C_8H_{12}N_2$	40,42,56,83,107,121,135,142,157,170,184,208,220,232,401,419,429,441,454,469,489,509,521,533.

39	3-tert-Butyl-4-hydroxyanisole	11.68	0.22	180	$C_{11}H_{16}O_2$	40,43,65,77,91,105,122,137,150,165,180,195,207,223,253,346,360,372,390,405,424,434,448,464,479,490.
40	4-[5-(2-furfurylthio)-2-nitrophenyl]-morpholine	5.23	0.08	348	$C_{16}H_{16}N_2O_5S$	51,53,68,81,93,108,123,151,177,191,207,362,386,405,416,428,444,463,486,504.