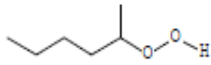
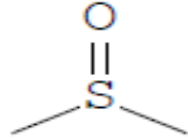
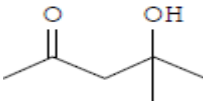
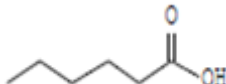
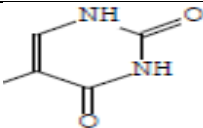
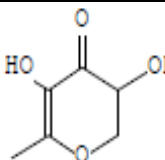
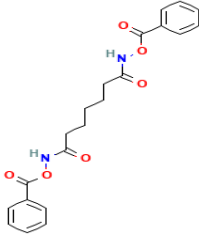
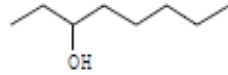
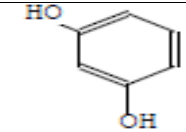
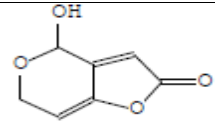
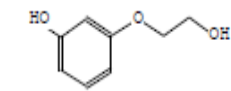
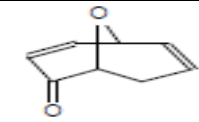
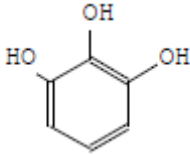
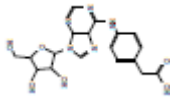
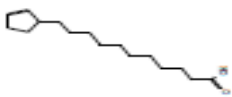
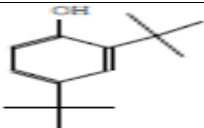
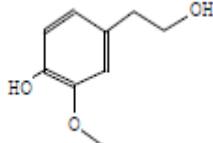
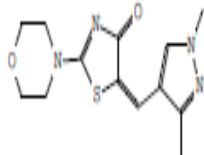


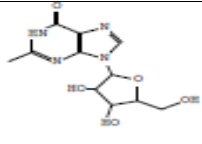
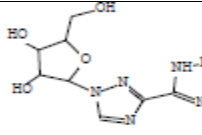
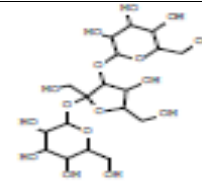
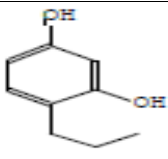
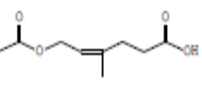
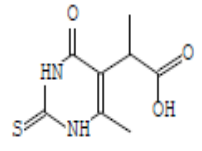
## Online Supplementary Materials

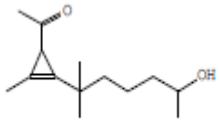
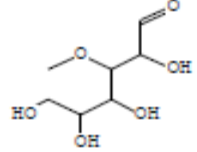
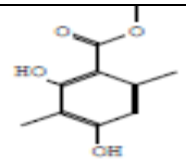
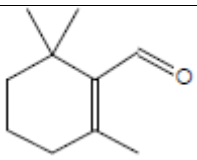
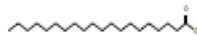
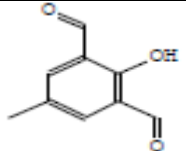
**Table 1. Chemical compounds in the acetone stem bark extract of *Ziziphus mucronata* and their therapeutic potentials**

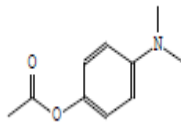
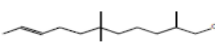

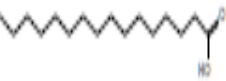
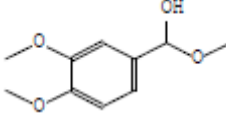
S/N	Rt	Area %	Molecular Formula	Molecular Weight	CAS Number	Name	Structure	Therapeutic Potential/References
1	4.057	0.67	C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	118	24254-55-5	1-methylpentyl-Hydroperoxide		Antiseptic, antibacterial, disinfectant, preservative <sup>1</sup>
2	4.150	2.13	C <sub>2</sub> H <sub>6</sub> OS	78	67-68-5	Dimethyl Sulfoxide		Anti-inflammatory, bacteriostatic, cholinesterase inhibition, analgesic <sup>2</sup>
3	4.340	24.87	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	116	123-42-2	4-hydroxy-4-methyl-2-Pentanone		antimicrobial, insecticidal, and phytotoxic activities <sup>3</sup>
4	6.108	0.32	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	116	142-62-1	Hexanoic acid		Antifungal, acidulant <sup>4</sup>
5	7.233	0.31	C <sub>5</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub>	126	65-71-4	Thymine		Antitumor <sup>5</sup>
6	8.056	0.41	C <sub>6</sub> H <sub>8</sub> O <sub>4</sub>	144	28564-83-2	2,3-dihydro-3,5-dihydroxy--6-methyl- 4H-Pyran-4-one		Antimicrobial, anti-inflammatory, antiproliferative, anti-oxidant, pro-apoptotic effects in human colon cancer

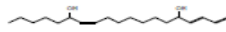
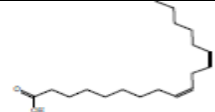
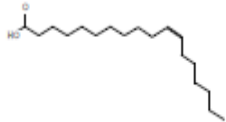
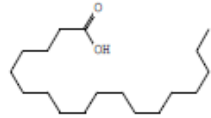
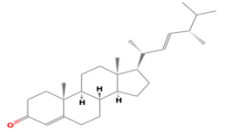
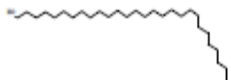
								cells and induced apoptosis in hepato-carcinoma cells <sup>6</sup>
7	8.276	0.15	C <sub>21</sub> H <sub>22</sub> N <sub>2</sub> O <sub>6</sub>	398	0-00-0	N,N'-di-benzoyloxy-Heptanediamide		No activity found
8	8.582	0.41	C <sub>8</sub> H <sub>18</sub> O	130	589-98-0	3-Octanol		Antibacterial, antifungal <sup>7</sup>
9	9.445	8.41	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	110	108-46-3	Resorcinol		antiseptic, antipruritic, anti-allergic, anti-inflammatory, cytotoxic, bactericide and germicide <sup>8</sup>
10	10.092	0.17	C <sub>7</sub> H <sub>6</sub> O <sub>4</sub>	154	149-29-1	Patulin		Mutagenic, carcinogenic and teratogenic, induces intestinal injuries, inflammation, ulceration, and hemorrhages <sup>9</sup>
11	10.226	0.28	C <sub>8</sub> H <sub>10</sub> O <sub>3</sub>	154	49650-88-6	3-(2-hydroxyethoxy)-Phenol		No activity found
12	10.319	0.31	C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	136	75568-53-5	9-Oxa-bicyclo[3.3.1]nona-3,6-dien-2-one		No reported activity

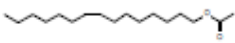
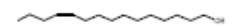
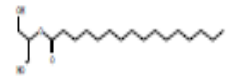
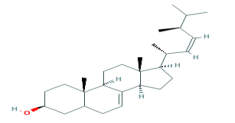
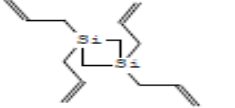
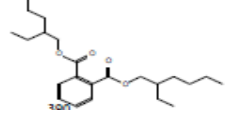
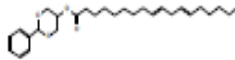
13	10.472	1.26	C <sub>6</sub> H <sub>6</sub> O <sub>3</sub>	126	87-66-1	1,2,3-Benzenetriol		Antiseptic, anti-fungal and anti-psoriatic, mutagenic, carcinogenic, hepatotoxic, impairs immune responses, inhibits phagocytosis <sup>10</sup>
14	10.875	2.38	C <sub>18</sub> H <sub>19</sub> N <sub>5</sub> O <sub>6</sub>	401	96760-57-5	Adenosine, N6-phenylacetic acid		Antimicrobial <sup>11</sup>
15	11.364	0.53	C <sub>16</sub> H <sub>28</sub> O <sub>2</sub>	252	459-67-6	11-(2-Cyclopenten-1-yl)undecanoic acid, (+)-		Antimicrobial <sup>12</sup>
16	11.888	0.83	C <sub>14</sub> H <sub>22</sub> O	206	96-76-4	2,4-bis(1,1-dimethylethyl)-Phenol		Cytotoxic, larvicidal, repellent, antibacterial, antiviral, antifungal <sup>13</sup>
17	11.919	0.71	C <sub>9</sub> H <sub>12</sub> O <sub>3</sub>	168	2380-78-1	Homovanillyl alcohol		Antioxidant, anti-inflammatory and anticancer activity <sup>14</sup>
18	12.098	0.37	C <sub>13</sub> H <sub>16</sub> N <sub>4</sub> O <sub>2</sub> S	292	0-00-0	5-[(1,3-dimethyl-1H-pyrazol-4-yl)methylidene]-2-(4-morpholinyl)-4(5H)-Thiazolone		No reported activity

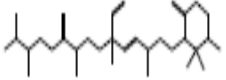
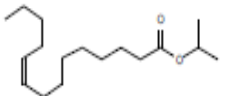
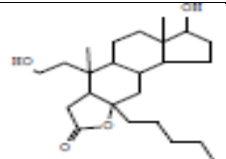
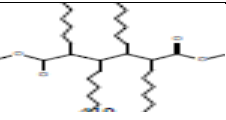
19	12.173	0.32	C <sub>11</sub> H <sub>14</sub> N <sub>4</sub> O <sub>5</sub>	282	0-00-0	2-Methyl-9-.beta.-d- ribofuranosylhypox anthine		No reported activity
20	12.231	0.52	C <sub>8</sub> H <sub>11</sub> N <sub>7</sub> O 4	269	0-00-0	1-β-d- Ribofuranosyl-3-[5- tetraazolyl]-1,2,4- triazole		Antiviral <sup>15</sup> , analgesic, antipyretic, anti-convulsant, anti-inflammatory and immune modulatory activity <sup>16</sup>
21	12.315	1.20	C <sub>18</sub> H <sub>32</sub> O <sub>16</sub>	504	597-12-6	O-α-D- glucopyranosyl-α- D-Glucopyranoside		No reported activity
22	12.407	2.31	C <sub>9</sub> H <sub>12</sub> O <sub>2</sub>	152	18979-60- 7	4-propyl- 1,3- Benzenediol		Tyrosinase inhibitory activity <sup>17</sup>
23	12.471	1.34	C <sub>9</sub> H <sub>14</sub> O <sub>4</sub>	186	27872-60- 2	6-(acetyloxy)-4- methyl- 4-Hexenoic acid,		No reported activity
24	12.884	0.53	C <sub>8</sub> H <sub>10</sub> N <sub>2</sub> O 3S	214	0-00-0	2-(6-methyl-4-oxo- 2-thioxo-1,2,3,4- tetrahydropyrimidin -5-yl)-Propionic acid		No reported activity

25	12.980	1.00	C <sub>14</sub> H <sub>24</sub> O <sub>2</sub>	224	90165-05-2	1-[2-(5-hydroxy-1,1-dimethylhexyl)-3-methyl-2-cyclopropen-1-yl]-Ethanone		No reported activity
26	13.147	1.99	C <sub>7</sub> H <sub>14</sub> O <sub>6</sub>	194	0-00-0	3-O-Methyl-d-glucose		Reduction of streptozotocin toxicity, enhancement of antitumor activity <sup>18</sup>
27	13.681	0.61	C <sub>10</sub> H <sub>12</sub> O <sub>4</sub>	196	4707-47-5	Benzoic acid, 2,4-dihydroxy-3,6-dimethyl-, methyl ester		No reported activity
28	13.870	0.15	C <sub>10</sub> H <sub>16</sub> O	152	432-25-7	2,6,6-trimethyl-1-Cyclohexene-1-carboxaldehyde		No reported activity
29	14.378	0.25	C <sub>20</sub> H <sub>40</sub> O <sub>2</sub>	312	506-30-9	Eicosanoic acid		Anti-pneumococcal, anti-mutagenic <sup>19</sup>
30	14.466	1.04	C <sub>9</sub> H <sub>8</sub> O <sub>3</sub>	164	7310-95-4	2-Hydroxy-5-methylisophthalaldehyde		Antibacterial <sup>20</sup>

31	14.572	0.36	C <sub>10</sub> H <sub>13</sub> NO 2	179	2436-77-3	4-(N-Dimethylamino)phenol, acetate(ester)		No reported activity
32	15.492	0.43	C <sub>14</sub> H <sub>28</sub> O	212	0-00-0	2,6,6-Trimethyl-9-undecen-1-ol		No reported activity
33	16.275	0.25	C <sub>10</sub> H <sub>18</sub> O <sub>2</sub>	170	53678-20-9	3-Decenoic acid		Antitumor <sup>21</sup>
34	16.497	3.16	C <sub>16</sub> H <sub>32</sub> O <sub>2</sub>	256	57-10-3	n-Hexadecanoic acid		Anti-tumor, anti-helminthic, Antioxidant, 5- $\alpha$ reductase inhibitor, Hypocholesterolemic, Nematicide, Pesticide, Antiandrogenic, Hemolytic, Anti-inflammatory, potent mosquito larvicide, antifungal, antimalarial, antimicrobial, anticancer <sup>22</sup>
35	16.944	1.09	C <sub>10</sub> H <sub>14</sub> O <sub>4</sub>	198	0-00-0	Benzaldehyde, 3,4-dimethoxy-, methylmonoacetal		No reported activity

36	17.010	0.80	C <sub>19</sub> H <sub>34</sub> O <sub>2</sub>	294	0-00-0	E,E,Z-1,3,12-Nonadecatriene-5,14-diol		No known activity <sup>23</sup>
37	18.009	1.49	C <sub>18</sub> H <sub>32</sub> O <sub>2</sub>	280	60-33-3	9,12-Octadecadienoic acid (Z,Z)		Antioxidant, anti-hyperlipidemia and anti-atherosclerosis, anti-inflammatory, hepatoprotective activities <sup>24</sup>
38	18.074	1.44	C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>	282	506-17-2	cis-Vaccenic acid		Upregulation of gamma globulin expression, Anti-bacterial, anti-inflammatory, hypolipidemic effect <sup>25</sup>
39	18.279	1.19	C <sub>18</sub> H <sub>36</sub> O <sub>2</sub>	284	57-11-4	Octadecanoic acid		Anti-microbial, antiviral, antibacterial, antioxidant <sup>22</sup>
40	18.420	1.62				Ergosta-4,22-dien-3-one		No reported activity
41	18.729	7.37	C <sub>28</sub> H <sub>44</sub> O	396	4030-92-6	Octacosanol		Lowering of cholesterol; antioxidant, anti-bacterial, antinociceptive and anti-inflammatory <sup>26</sup>

42	19.398	0.41	C <sub>17</sub> H <sub>32</sub> O <sub>2</sub>	268	0-00-0	Z-8-Pentadecen-1-ol acetate		No reported activity
43	20.340	0.83	C <sub>15</sub> H <sub>30</sub> O	226	0-00-0	Z-11-Pentadecenol		No known activity
44	20.626	1.73	C <sub>19</sub> H <sub>38</sub> O <sub>4</sub>	330	23470-00-0	Hexadecanoic acid, 2-hydroxy-1-(hydroxymethyl)ethyl ester		Hemolytic, pesticide, flavour antioxidant activities <sup>27</sup>
45	20.765	1.71	C <sub>28</sub> H <sub>46</sub> O	398	17608-76-3	Ergosta-7,22-dien-3-ol, (3-β-22E)-		No reported activity
46	20.825	0.49	C <sub>14</sub> H <sub>24</sub> Si <sub>2</sub>	248	0-00-0	1,1,3,3-Tetraallyl-1,3-disilacyclobutane		No reported activity
47	20.906	2.13	C <sub>24</sub> H <sub>38</sub> O <sub>4</sub>	390	117-81-7	Bis(2-ethylhexyl) phthalate		Anti-tumor, antioxidant, cytotoxic, antibacterial, antifungal, antimicrobial, cytotoxic, anti-mutagenic <sup>28</sup>
48	21.137	1.50	C <sub>28</sub> H <sub>42</sub> O <sub>4</sub>	442	56687-50-4	9,12-Octadecadienoic acid, 2-phenyl-1,3-dioxan-4-yl ester, cis-		Anti-inflammatory, cancer preventive, hepatoprotective <sup>29</sup>

49	21.847	9.92	C <sub>33</sub> H <sub>56</sub>	452	0-00-0	1,1,6-trimethyl-3-methylene-2-(3,6,9,13-tetramethyl-6-ethenyl-10,14-dimethylene-pentadec-4-enyl)cyclohexane		No reported activity
50	22.064	1.53	C <sub>17</sub> H <sub>32</sub> O <sub>2</sub>	268	0-00-0	i-Propyl 9-tetradecenoate		No reported activity
51	22.132	3.32	C <sub>24</sub> H <sub>40</sub> O <sub>4</sub>	392	59251-66-0	2,6-β-17-β-Trihydroxy-6-α-pentyl-2,3-seco-5-α-androstan-3-oic acid-γ-lactone		No reported activity
52	22.183	2.41	C <sub>32</sub> H <sub>62</sub> O <sub>4</sub>	510	0-00-0	Hexanedioic acid, 2,3,4,5-tetrahexyl-, dimethyl ester		No reported activity

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