

**Supplementary data**

**Appendix A**

**Table S1.** A sample of the data from the RTCA assay

Log Concentration	Cell index	Log Concentration	Cell index
-3.700084956	95.94644738	-3.70886011	100.889535
-3.668086648	92.47831319	-3.676785915	98.3781277
-3.636365062	88.77099734	-3.644989097	95.9464474
-3.604917803	84.46572732	-3.613467258	93.1958582
-3.5737425	80.08073008	-3.58221802	90.3256782
-3.542836801	75.73559645	-3.551239024	87.4156346
-3.512198375	71.27087199	-3.520527935	84.2664093
-3.481824909	66.80614752	-3.490082436	80.9577295
-3.451714113	62.58060472	-3.459900228	77.529459
-3.421863714	58.07601665	-3.429979036	73.9815976
-3.392271462	53.61129218	-3.400316603	70.3141453
-3.362935123	49.26615855	-3.37091069	66.4872386
-3.333852485	44.8412977	-3.341759079	62.4610139
-3.305021353	40.33670962	-3.312859571	58.3151983
-3.276439553	36.11116683	-3.284209986	54.0099283
-3.248104927	31.48698792	-3.255808162	49.5053402
-3.22001534	27.22158151	-3.227651957	45.0007521
-3.192168671	22.83658427	-3.199739246	40.1373916
-3.164562819	18.3718598	-3.172067924	35.3936218
-3.137195703	13.90713534	-3.144635904	30.4106704
-3.110065258	9.641728927	-3.117441116	25.2682646
-3.083169436	5.09727724	-3.090481508	19.9265406
-3.05650621	1.150779722	-3.063755047	14.664544
-3.036060842	-0.583287369	-3.037259716	9.16336559
		-3.010993516	3.50273279
		-2.994397054	1.53612796

**Table S2:** A sample of the Alamar Blue assay data

Water soluble extract	% Viability	Methanol soluble extract	% viability
0	99.57	0	99.57
50	84.65	50	98.27
100	73.13	100	93.56
150	64.60	150	91.40
200	55.63	200	87.55
250	50.07	250	82.84
300	43.23	300	79.40
350	36.82	350	76.82
400	30.41	400	75.09
450	23.15	450	73.36
500	18.01	500	72.06
550	13.31	550	69.90
600	7.74	600	68.17
		650	64.74
		700	60.88
		750	55.74

**Table S3: Chemical Constituents Identified in Tulbaghia Crude Water Extract**

ID	Chemical Name	Chemical Formula	Molecular Weight (g/mol)
<b>Amine</b>			
1	Ethylamine	C <sub>2</sub> H <sub>7</sub> N	45.08
2	Dimethylamine	C <sub>2</sub> H <sub>7</sub> N	45.08
3	Piperidine	C <sub>5</sub> H <sub>11</sub> N	85.15
4	1,3,5-Triazine-2,4,6-triamine	C <sub>3</sub> H <sub>6</sub> N <sub>6</sub>	126.12
5	2-Propen-1-amine	C <sub>3</sub> H <sub>7</sub> N	57.1
6	Diethanolamine	C <sub>4</sub> H <sub>11</sub> NO <sub>2</sub>	105.14
7	N-Nitrosodimethylamine	C <sub>2</sub> H <sub>6</sub> N <sub>2</sub> O	74.08
8	Pyridine	C <sub>5</sub> H <sub>5</sub> N	79.1
9	Aniline	C <sub>6</sub> H <sub>7</sub> N	93.13
10	3-Amino-s-triazole	C <sub>2</sub> H <sub>4</sub> N <sub>4</sub>	84.08
11	1-Naphthalenamine	C <sub>10</sub> H <sub>9</sub> N	143.19
12	Piperidine, 1-nitroso-	C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O	98.15
13	Terbutaline, tris(trimethylsilyl)ether	C <sub>21</sub> H <sub>43</sub> NO <sub>3</sub> Si <sub>3</sub>	441.83
14	Tricyclo[3.3.1.1(3,7)]decan-1-amine	C <sub>10</sub> H <sub>17</sub> N	151.25
15	2-Propanamine, N-(1-methylpropylidene)-	C <sub>7</sub> H <sub>15</sub> N	113.2
16	DL-Cystine	C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub>	240.3
17	N-Acetyl-L-methioninamide	C <sub>6</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub> S	176.24
18	2-Isopropoxyethylamine	C <sub>5</sub> H <sub>13</sub> NO	103.16
19	2-Heptanamine, 5-methyl-	C <sub>8</sub> H <sub>19</sub> N	129.24
20	2-Butanamine, (S)-	C <sub>4</sub> H <sub>11</sub> N	73.14
<b>Ester</b>			
21	Acetic acid ethenyl ester	C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	86.09
22	Butanoic acid, 3-methyl-, butyl ester	C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	158.24
23	Ethyl acetate	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	88.11
24	1-Butanol, 3-methyl-, acetate	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	116.16
25	2-Butanol, 2-methyl-, acetate	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	116.16
26	3-Cyclopentylpropionic acid, 2-naphthyl ester	C <sub>18</sub> H <sub>20</sub> O <sub>2</sub>	268.35
27	Benzaldehyde, 4-(1-methylethyl)-	C <sub>10</sub> H <sub>12</sub> O	148.2
28	Benzoic acid, 2,4-bis[(trimethylsilyloxy]-, trimethylsilyl ester	C <sub>16</sub> H <sub>30</sub> O <sub>4</sub> Si <sub>3</sub>	370.66
29	11,14,17-Eicosatrienoic acid, methyl ester	C <sub>21</sub> H <sub>36</sub> O <sub>2</sub>	320.5
30	Pentafluoropropionic acid, 3-methylbutyl ester	C <sub>8</sub> H <sub>11</sub> F <sub>5</sub> O <sub>2</sub>	234.16
31	3-Octene, (E)-	C <sub>8</sub> H <sub>16</sub>	112.21
32	1,3-Butanediol, diacetate	C <sub>8</sub> H <sub>14</sub> O <sub>4</sub>	174.2
33	Sulfurous acid, pentyl 2-propyl ester	C <sub>8</sub> H <sub>18</sub> O <sub>2</sub> S	178.29
34	Acetic acid, 2-methylpropyl ester	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	116.16
35	Acetic acid, pentyl ester	C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	130.19
36	Acetic acid, butyl ester	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	116.16
<b>Carboxylic Acid</b>			
37	Fluoroacetic acid	C <sub>2</sub> H <sub>3</sub> FO <sub>2</sub>	78.05
38	Propanoic acid	C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	74.08
39	Benzenepropanoic acid	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	150.17
40	Benzoic acid, 3,4-dimethyl-	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	150.17
41	2-Ethyl-2-hydroxybutyric acid	C <sub>6</sub> H <sub>12</sub> O <sub>3</sub>	132.16
42	Formic acid	CH <sub>2</sub> O <sub>2</sub>	46.03
43	Fumaramic acid	C <sub>4</sub> H <sub>5</sub> NO <sub>4</sub>	131.09
44	2-Methyl-4-pentenoic acid	C <sub>6</sub> H <sub>10</sub> O <sub>2</sub>	114.14
45	2,3-Pentadienoic acid, ethyl ester	C <sub>7</sub> H <sub>10</sub> O <sub>2</sub>	126.15
46	2-Mercaptopropanoic acid	C <sub>3</sub> H <sub>6</sub> O <sub>2</sub> S	106.14
47	dl-Mevalonic acid lactone	C <sub>6</sub> H <sub>10</sub> O <sub>3</sub>	130.14

48	Propanoic acid, anhydride	C <sub>6</sub> H <sub>10</sub> O <sub>3</sub>	130.14
49	Propanoic acid, 2-methyl-	C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	88.11
<b>Alkane</b>			
50	Tridecane	C <sub>13</sub> H <sub>28</sub>	184.37
51	Tetradecane	C <sub>14</sub> H <sub>30</sub>	198.39
52	Decane, 2-methyl-	C <sub>11</sub> H <sub>24</sub>	156.31
53	Dodecane	C <sub>12</sub> H <sub>26</sub>	170.34
<b>Aldehyde</b>			
54	Acetaldehyde	C <sub>2</sub> H <sub>4</sub> O	44.05
55	Propanal	C <sub>3</sub> H <sub>6</sub> O	58.08
56	Butanal	C <sub>4</sub> H <sub>8</sub> O	72.11
<b>Phenol</b>			
57	Phenol, 2-methoxy-4-(1-propenyl)-	C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>	164.2
58	Phenol, 2-nitro-	C <sub>6</sub> H <sub>5</sub> NO <sub>3</sub>	139.11
59	Phenol, 3-nitro-	C <sub>6</sub> H <sub>5</sub> NO <sub>3</sub>	139.11
60	Phenol, 3,4-dimethoxy-	C <sub>8</sub> H <sub>10</sub> O <sub>3</sub>	154.17
61	Resorcinol	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	110.11
62	Phenol, 4-ethyl-	C <sub>8</sub> H <sub>10</sub> O	122.16
63	Phenol, 2,4-bis(1,1-dimethylethyl)-	C <sub>14</sub> H <sub>22</sub> O	206.32
64	1,2-Benzenediol	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	110.11
65	Vanillin	C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>	152.15
66	Phenol, 4-iodo-	C <sub>6</sub> H <sub>5</sub> IO	220.01
<b>Thioamide</b>			
67	Thioimidodicarbonic diamide	CH <sub>2</sub> N <sub>4</sub> S	90.11
<b>Alcohol</b>			
68	Isopropyl Alcohol	C <sub>3</sub> H <sub>8</sub> O	60.1
69	Benzenemethanol, 4-hydroxy- $\alpha$ -[1-[(1-methyl-2-phenoxyethyl)amino]ethyl]-	C <sub>16</sub> H <sub>19</sub> NO <sub>3</sub>	273.33
70	2-Furanmethanol	C <sub>5</sub> H <sub>6</sub> O <sub>2</sub>	98.1
71	Ethanol, 2-ethoxy-	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	90.12
72	1-Butanol, 3-methyl-	C <sub>5</sub> H <sub>12</sub> O	88.15
73	2-Propyn-1-ol	C <sub>3</sub> H <sub>4</sub> O	56.06
<b>Nitrile</b>			
74	Acetonitrile	C <sub>2</sub> H <sub>3</sub> N	41.05
75	Propanenitrile	C <sub>3</sub> H <sub>5</sub> N	55.08
76	Cyanogen chloride	CNCl	61.47
<b>Amide</b>			
77	Benzeneacetamide	C <sub>8</sub> H <sub>9</sub> NO	135.16
78	Acetamide, N-acetyl-N-(1-methylpropyl)-	C <sub>8</sub> H <sub>15</sub> NO <sub>2</sub>	157.21
79	Acetamide, N-phenyl-	C <sub>8</sub> H <sub>9</sub> NO	135.16
<b>Ether</b>			
80	Bis(2-chloroethyl) ether	C <sub>4</sub> H <sub>8</sub> Cl <sub>2</sub> O	143.01
81	Disulfide, dimethyl	C <sub>2</sub> H <sub>6</sub> S <sub>2</sub>	94.19
82	Ethyl ether	C <sub>4</sub> H <sub>10</sub> O	74.12
<b>Epoxide</b>			
83	Ethylene oxide	C <sub>2</sub> H <sub>4</sub> O	44.05
84	Oxirane, ethyl-	C <sub>4</sub> H <sub>8</sub> O	72.11
<b>Phosphate</b>			
85	Triphenyl phosphate	C <sub>18</sub> H <sub>15</sub> O <sub>4</sub> P	326.28
<b>Halogenated Compound</b>			
86	Silane, chlorotrimethyl-	C <sub>3</sub> H <sub>9</sub> ClSi	108.64
87	Methane, dibromo-	CH <sub>2</sub> Br <sub>2</sub>	173.83
88	Naphthalene, 2-chloro-	C <sub>10</sub> H <sub>7</sub> Cl	162.61
<b>Ketone</b>			
89	Cyclohexanone	C <sub>6</sub> H <sub>10</sub> O	98.15

90	Methyl vinyl ketone	C <sub>4</sub> H <sub>6</sub> O	70.09
91	Ethanone, 1-(2,5-dimethoxyphenyl)-	C <sub>10</sub> H <sub>12</sub> O <sub>3</sub>	180.2
92	3-Pentanone, 2,2,4,4-tetramethyl-	C <sub>9</sub> H <sub>18</sub> O	142.24
	Polycyclic Aromatic		
93	7H-Dibenzo[c,g]carbazole	C <sub>20</sub> H <sub>13</sub> N	267.33
	Aromatic Hydrocarbon		
94	Phenanthrene, 2,7-dimethyl-	C <sub>16</sub> H <sub>14</sub>	206.29
	Aromatic Hydrocarbon		
95	1,3,5-Benzenetriol	C <sub>6</sub> H <sub>6</sub> O <sub>3</sub>	126.11
96	1-Naphthalenol	C <sub>10</sub> H <sub>8</sub> O	144.17
97	Benzo[h]quinoline, 2,4-dimethyl-	C <sub>11</sub> H <sub>9</sub> N	171.21
	Silicon Compound		
98	Cyclononasiloxane, octadecamethyl-	C <sub>18</sub> H <sub>54</sub> O <sub>9</sub> Si <sub>9</sub>	666.14
99	1,1,1,3,5,5,5-Heptamethyltrisiloxane	C <sub>7</sub> H <sub>20</sub> OSi <sub>3</sub>	222.48