Supplementary information

Table S1. Non-linear regression fit analysis table of the activities and IC_{50} values of the extracts of *Ocimum basilicum* and standards

	Bottom (A1)	Top (A2)	logIC_{50} (Log10)	Hill slope (p)	IC_{50}(µg/mL)	Adj. R^2
Anti-diabetic activity						
Seed	27.48	57.18	2.76	3.7	569.71	0.997
Stem	26.98	44.71	3.01	4.3	1029.16	0.996
Leaf	32.48	47.06	2.94	3.97	874.34	0.997
Acarbose	26.98	52.35	2.85	4.11	703.13	0.998
Anti-inflammatory activity						
Seed	51.42	63.96	2.01	4.2	102.89	0.998
Stem	35.1	67.95	2.38	4.34	239.35	0.998
Leaf	35.56	68.32	2.6	3.79	395.66	0.998
Salicylic Acid	51.06	75.96	2.17	3.77	149.55	0.999
Anti-oxidant activity						
BHT	52.12	66.6	2.08	5	120.23	0.997
Leaf	36.13	62.94	2.64	3.32	436.52	0.998
Seed	35.56	63.65	2.59	3.88	391.74	0.998
Stem	26.11	58.56	3.01	4.43	1029.16	0.997

Table S2. List of compounds observed from methanolic extract of leaf of *Ocimum basilicum*

Peak#	R.time	Area	Area%	Name
1	4.912	388323	0.31	2,4-Dihydroxy-2,5-dimethyl-3(2H)-furan-3-one
2	5.713	658432	0.53	EUCALYPTOL (1,8-CINEOLE)
3	5.813	178235	0.14	Benzyl alcohol
4	6.733	283001	0.23	1,6-OCTADIEN-3-OL, 3,7-DIMETHYL-
5	6.801	273643	0.22	HO-TRIENOL
6	7.563	5143514	4.11	BICYCLO[2.2.1]HEPTAN-2-ONE, 1,7,7-TRIMETHYL-
7	8.165	923233	0.74	3,7-Octadiene-2,6-diol, 2,6-dimethyl-
8	8.333	43733265	34.95	Estragole
9	8.910	1797888	1.44	5-Hydroxymethylfurfural
10	9.215	792373	0.63	ACETIC ACID, DECYL ESTER
11	9.406	214248	0.17	1,7-Octadiene-3,6-diol, 2,6-dimethyl-
12	9.915	381167	0.30	1,1-DIMETHYL-1,2-DIHYDROSILINE
13	10.001	273818	0.22	2-METHOXY-4-VINYLPHENOL
14	10.184	23914199	19.11	BENZOIC ACID, 2-HYDROXY-
15	10.508	3757408	3.00	Salicylic acid, TMS derivative
16	11.136	1793336	1.43	BENZENE, 1,2-DIMETHOXY-4-(2-PROPENYL)-
17	12.061	477009	0.38	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-meth
18	12.232	461014	0.37	GUANOSINE
19	12.690	948254	0.76	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-meth

20	13.245	208200	0.17	3-tert-Butyl-4-hydroxyanisole
21	13.476	529382	0.42	Cyclopenta[1,3]cyclopropa[1,2]cyclohepten-3(3aH)-one, 1
22	13.604	152881	0.12	Caryophyllene oxide
23	13.970	1184880	0.95	Epicubenol
24	14.101	273014	0.22	Succinic acid, tridec-2-yn-1-yl 3-methylbut-2-yl ester
25	14.272	4725836	3.78	.tau.-Cadinol
26	14.469	746595	0.60	Cryptomeridiol
27	14.547	651144	0.52	3-HYDROXY-6-ISOPROPENYL-4,8A-DIMETHYL-1,2,3
28	14.627	190026	0.15	3-METHYL-5-(2,6,6-TRIMETHYL-1-CYCLOHEXEN-1-
29	14.720	677672	0.54	3-HYDROXY-6-ISOPROPENYL-4,8A-DIMETHYL-1,2,3
30	15.104	408557	0.33	CYCLOHEXANOL, 2-METHYL-3-(1-METHYLETHEN
31	15.454	293730	0.23	4,8-DIMETHYL-3,8-NONADIEN-2-ONE
32	15.740	466590	0.37	1,4-DIMETHYL-3-(2-METHYL-1-PROPENYL)-4-VINY
33	15.958	416007	0.33	PREGN-4-ENE-3,20-DIONE
34	16.056	356950	0.29	2,6,11-Tridecatrien-10-ol, 2,6,10-trimethyl-
35	16.250	1115282	0.89	Neophytadiene
36	16.315	525865	0.42	2-Pentadecanone, 6,10,14-trimethyl-
37	16.403	594689	0.48	1a,2,5,5Tetramethyl-trans-1a,4a,5,6,7,8-hexahydro-gamma
38	16.504	285752	0.23	Neophytadiene
39	16.701	453503	0.36	Neophytadiene
40	17.576	482334	0.39	n-Hexadecanoic acid
41	18.866	179369	0.14	9,12,15-OCTADECATRIENOIC ACID, METHYL ESTER
42	18.973	2227944	1.78	2-HEXADECEN-1-OL, 3,7,11,15-TETRAMETHYL-, [R-[
43	19.676	596376	0.48	erythro-9,10-Dibromopentacosane
44	19.881	666040	0.53	Phytol, acetate
45	20.506	938048	0.75	2-Dimethylaminoethyl benzyldithiocarbamate
46	21.582	523205	0.42	Triphenyl phosphate
47	22.442	290817	0.23	Hexadecanoic acid, 2-hydroxy-1-(hydroxymethyl)ethyl este
48	23.805	419894	0.34	Tetracontane
49	24.888	397689	0.32	.alpha.-Tocospiro B
50	25.036	517789	0.41	.alpha.-Tocospiro B
51	25.226	739057	0.59	TETRACONTANE
52	25.978	208427	0.17	Hexatriacontane
53	26.833	1787780	1.43	TETRACONTANE
54	27.549	1106510	0.88	Triacontane, 1-iodo-
55	27.820	440624	0.35	erythro-9,10-Dibromopentacosane
56	28.474	644210	0.51	ERGOST-5-EN-3-OL, (3.BETA.,24R)-
57	28.769	594555	0.48	Stigmasterol
58	28.986	1431622	1.14	Tetracontane
59	29.551	2564294	2.05	.gamma.-Sitosterol
60	29.998	316192	0.25	DOTRIACONTANE
61	30.232	914217	0.73	.beta.-Amyrin
62	30.954	6486938	5.18	.alpha.-Amyrin

Table S3. List of compounds observed from methanolic extract of stem of *Ocimum basilicum*

Peak#	R.Time	Area	Area%	Name
1	4.903	864229	0.74	2,4-Dihydroxy-2,5-dimethyl-3(2H)-furan-3-one
2	5.962	1401878	1.20	BUTANOIC ACID, 2-ETHYL-, METHYL ESTER
3	6.587	2428968	2.08	1,3,5-Triazine-2,4,6-triamine
4	6.744	961831	0.82	Linalool
5	6.910	1308834	1.12	1H-Pyrrole, 2,5-dihydro-
6	7.463	369300	0.32	Pentanoic acid, 2,2-dimethyl-, methyl ester
7	7.584	11016207	9.44	4H-Pyran-4-one, 2,3-dihydro-3,5-dihydroxy-6-methyl-
8	7.970	112011	0.10	BICYCLO[2.2.1]HEPTAN-2-OL, 1,7,7-TRIMETHYL-
9	8.320	21232413	18.19	Estragole
10	8.654	338024	0.29	L-Proline, 1-acetyl-
11	8.794	394749	0.34	2,3-DIHYDRO-BENZOFURAN
12	8.877	6938532	5.95	2-FURANCARBOXALDEHYDE, 5-(HYDROXYMETHY
13	9.230	993856	0.85	4-ALLYLPHENOL
14	9.992	893792	0.77	2-METHOXY-4-VINYLPHENOL
15	11.049	1819025	1.56	Cyclohexane, 1-ethenyl-1-methyl-2,4-bis(1-methylethenyl)
16	11.126	1210984	1.04	BENZENE, 1,2-DIMETHOXY-4-(2-PROPENYL)-
17	11.510	648480	0.56	Caryophyllene
18	11.585	348385	0.30	trans,trans-2,6-Dimethyl-2,6-octadiene-1,8-diol
19	11.666	474535	0.41	AZULENE, 1,2,3,4,5,6,7,8-OCTAHYDRO-1,4-DIMETHY
20	11.871	198077	0.17	Cycloheptasiloxane, tetradecamethyl-
21	12.017	265719	0.23	Benzaldehyde, 2-hydroxy-4-methyl-
22	12.053	181861	0.16	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-meth
23	12.300	310302	0.27	1,6-CYCLODECADIENE, 1-METHYL-5-METHYLENE-
24	12.488	339507	0.29	GERMACRENE B
25	12.689	2327519	1.99	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-meth
26	12.902	351382	0.30	isoledene
27	13.060	210587	0.18	1,6,10-Dodecatrien-3-ol, 3,7,11-trimethyl-
28	13.229	398585	0.34	2-HYDROXY-4,4,8-TRIMETHYL-TRICYCLO[6.3.1.0 1,
29	13.435	658951	0.56	2-Propanone, 1-(4-methoxyphenyl)-
30	13.526	641885	0.55	1H-Cycloprop[e]azulen-7-ol, decahydro-1,1,7-trimethyl-4-
31	13.600	552013	0.47	(-)-5-OXATRICYCLO[8.2.0.0(4,6)]DODECANE,,12-TRI
32	13.856	667013	0.57	Cyclooctasiloxane, hexadecamethyl-
33	13.966	2233337	1.91	Epicubenol
34	14.098	215720	0.18	1-HEXADECEN-3-OL, 3,5,11,15-TETRAMETHYL-
35	14.276	11441113	9.80	.tau.-Cadinol
36	14.432	287343	0.25	.alpha.-Cadinol
37	14.466	226140	0.19	2-Naphthalenemethanol, decahydro-.alpha.,.alpha.,4a-trime
38	14.503	332853	0.29	4,4,7,7-TETRAMETHYL-2,3,4,5,6,7,8,9-OCTAHYDRO-1
39	14.623	274912	0.24	1H-Benzocycloheptene, 2,4a,5,6,7,8,9,9a-octahydro-3,5,5-
40	14.737	278350	0.24	.ALPHA.-BISABOLOL
41	14.964	217290	0.19	TETRADECANAL
42	15.101	488021	0.42	CYCLOHEXANOL, 2-METHYL-3-(1-METHYLETHEN
43	15.151	273121	0.23	Bergamotol, Z-.alpha.-trans-

44	15.452	152871	0.13	(-)-Globulol
45	16.111	223111	0.19	1,6-OCTADIEN-3-OL, 3,7-DIMETHYL-
46	16.248	1802924	1.54	Neophytadiene
47	16.315	847856	0.73	2-Pentadecanone, 6,10,14-trimethyl-
48	16.501	332718	0.29	3,7,11,15-Tetramethyl-2-hexadecen-1-ol
49	16.700	287956	0.25	2,6,10-TRIMETHYL,14-ETHYLENE-14-PENTADECNE
50	17.160	656532	0.56	HEXADECANOIC ACID, METHYL ESTER
51	17.384	317533	0.27	Isophytol
52	17.596	6544947	5.61	n-Hexadecanoic acid
53	18.387	271850	0.23	(1-BUTYLOCTYL)CYCLOHEXANE #
54	18.804	325487	0.28	9,12-Octadecadienoic acid (Z,Z)-, methyl ester
55	18.862	695776	0.60	9,12,15-OCTADECATRIENOIC ACID, METHYL ESTER
56	18.971	3154892	2.70	2-HEXADECEN-1-OL, 3,7,11,15-TETRAMETHYL-, [R-[
57	19.224	556552	0.48	9,12-Octadecadienoic acid (Z,Z)-
58	19.293	3886452	3.33	9,12,15-Octadecatrienoic acid, (Z,Z,Z)-
59	19.477	730242	0.63	Octadecanoic acid
60	19.879	197692	0.17	Phytol, acetate
61	20.509	942814	0.81	Phenylacetic acid, 2-dimethylaminoethyl ester
62	20.569	432625	0.37	3,4-Difluorobenzoic acid, hexadecyl ester
63	20.787	150555	0.13	1-HYDROXY-2,2,6,6-TETRAMETHYL-3-(1-PIPERIDIN
64	21.233	295418	0.25	9-OCTADECENAMIDE
65	21.578	1225284	1.05	Triphenyl phosphate
66	21.998	439315	0.38	3-Cyclopentylpropionic acid, 2-dimethylaminoethyl ester
67	22.250	611143	0.52	3-Octyl-[1,2]dithiolane
68	22.333	538760	0.46	1-(3-Methyl-2-butenoxy)-4-(1-propenyl)benzene
69	22.440	555609	0.48	Hexadecanoic acid, 2-hydroxy-1-(hydroxymethyl)ethyl est
70	23.464	365808	0.31	2-[5-(2-METHYL-1,3-BENZOXAZOL-7-YL)-1H-PYRAZ
71	23.810	263334	0.23	HEXATRIACONTANE
72	24.642	259020	0.22	Squalene
73	26.522	402621	0.34	.gamma.-Tocopherol
74	26.840	345833	0.30	Stigmasta-5,22-dien-3-ol, acetate, (3.beta.)-
75	27.240	573301	0.49	2,5,7,8-TETRAMETHYL-2-(4,8,12-TRIMETHYLTRIDE
76	27.507	368078	0.32	4H-1-Benzopyran-4-one, 5-hydroxy-6,7-dimethoxy-2-(4-m
77	27.568	284261	0.24	2H,8H-BENZO[1,2-B:5,4-B']DIPYRAN-10-PROPANOIC
78	28.478	1238514	1.06	ERGOST-5-EN-3-OL, (3.BETA.,24R)-
79	28.769	1657003	1.42	STIGMASTA-5,23-DIEN-3-OL, (3.BETA.)-
80	29.563	5702986	4.89	.gamma.-Sitosterol
81	30.240	724029	0.62	.beta.-Amyrin
82	30.949	803103	0.69	.alpha.-Amyrin
83	31.488	416263	0.36	.gamma.-Sitostenone
		116708702	100.00	

Table S4. List of compounds observed from methanolic extract of seed of *Ocimum basilicum*

Peak#	R.Time	Area	Area%	Name
1	4.918	467600	0.63	2,4-Dihydroxy-2,5-dimethyl-3(2H)-furan-3-one
2	5.950	385593	0.52	PROPANOIC ACID, 2-METHYL-, ETHYL ESTER

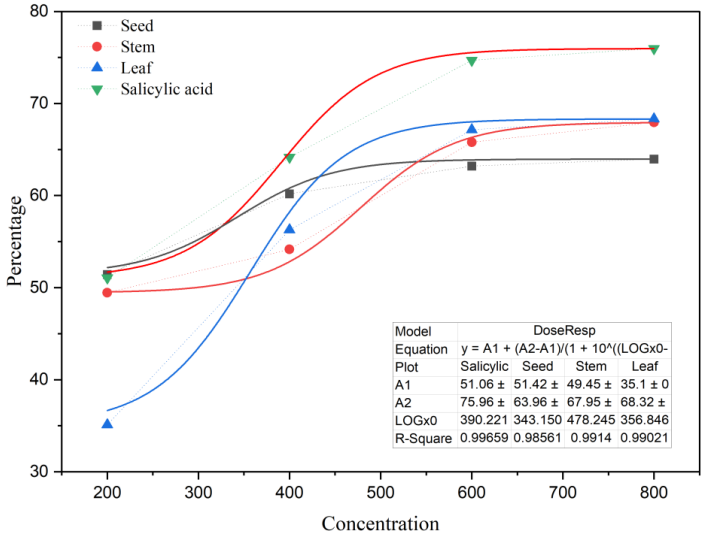
3	6.562	2065448	2.76	1,3,5-Triazine-2,4,6-triamine
4	6.905	1513587	2.03	1H-Pyrrole, 2,5-dihydro-
5	7.543	4204634	5.63	4H-Pyran-4-one, 2,3-dihydro-3,5-dihydroxy-6-methyl-
6	8.303	2586247	3.46	Estragole
7	8.641	1089812	1.46	L-Proline, 1-acetyl-
8	8.845	3542252	4.74	2-FURANCARBOXALDEHYDE, 5-(HYDROXYMETHY
9	9.110	790648	1.06	1,2,3-Propanetriol, 1-acetate
10	9.240	224826	0.30	4-ALLYLPHENOL
11	9.997	568981	0.76	2-METHOXY-4-VINYLPHENOL
12	12.059	2744156	3.67	2,4-CRESOTALDEHYDE
13	12.338	181050	0.24	2,5-Difluorobenzoic acid, 5-tetradecyl ester
14	12.690	274262	0.37	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-7-methyl-4-meth
15	13.243	213364	0.29	2-(tert-Butyl)-4-methoxyphenyl acetate
16	13.437	306262	0.41	Acethydrazide, 2-methoxy-2-phenyl-N2-(1-naphthylmethy
17	13.853	256062	0.34	Cyclooctasiloxane, hexadecamethyl-
18	13.967	540892	0.72	Epicubenol
19	14.091	187244	0.25	1-Hexadecen-3-ol, 3,5,11,15-tetramethyl-
20	14.264	1526883	2.04	.tau.-Cadinol
21	14.420	128283	0.17	Benzaldehyde, 4-hydroxy-3,5-dimethoxy-
22	14.496	256425	0.34	Neointermedeol
23	15.365	3071887	4.11	(E)-4-(3-Hydroxyprop-1-en-1-yl)-2-methoxyphenol
24	15.555	448117	0.60	Cyclononasiloxane, octadecamethyl-
25	16.248	1082756	1.45	Neophytadiene
26	16.314	246232	0.33	2-Pentadecanone, 6,10,14-trimethyl-
27	16.697	119798	0.16	CYCLOHEXANE, 1-METHYL-4-(1-METHYLETHENY
28	16.736	1010791	1.35	1-Hexadecanol
29	17.008	3187030	4.27	Dimethyl palmitamine
30	17.158	576116	0.77	Hexadecanoic acid, methyl ester
31	17.577	2163467	2.90	n-Hexadecanoic acid
32	17.972	379831	0.51	trans-Sinapyl alcohol
33	18.444	515064	0.69	CYCLODODECASILOXANE, TETRACOSAMETHYL-
34	18.802	352296	0.47	9,12-Octadecadienoic acid (Z,Z)-, methyl ester
35	18.860	683225	0.91	(Z,Z)-6,9-CIS-3,4-EPOXY-NONADECADIENE
36	18.968	1940201	2.60	2-HEXADECEN-1-OL, 3,7,11,15-TETRAMETHYL-, [R-[
37	19.096	106062	0.14	Methyl stearate
38	19.211	172582	0.23	9,12-Octadecadienoic acid (Z,Z)-
39	19.272	853961	1.14	cis-9-Hexadecenal
40	19.690	611654	0.82	Cyclononasiloxane, octadecamethyl-
41	20.504	162641	0.22	Phenylacetic acid, 2-dimethylaminoethyl ester
42	20.567	144614	0.19	1-EICOSANOL
43	20.786	162848	0.22	1-Hydroxy-2,2,6,6-tetramethyl-3-piperidinomethyl-4-piper
44	21.577	635865	0.85	Triphenyl phosphate
45	21.993	141377	0.19	3-Cyclopentylpropionic acid, 2-dimethylaminoethyl ester
46	22.252	319830	0.43	1-Heptacosanol
47	22.435	541883	0.73	Hexadecanoic acid, 2-hydroxy-1-(hydroxymethyl)ethyl este
48	23.683	444510	0.59	1,1'-Biphenyl-3,4,4'-trimethoxy-6'-formyl-
49	23.807	342470	0.46	2-Hydroxyhexadecanoic acid

50	24.642	369894	0.50	Squalene
51	26.301	339253	0.45	Stigmasta-4,7,22-trien-3.alpha.-ol
52	26.838	539966	0.72	Stigmasta-5,22-dien-3-ol, acetate, (3.beta.)-
53	27.237	689725	0.92	Vitamin E
54	28.475	2571773	3.44	ERGOST-5-EN-3-OL, (3.BETA.,24R)-
55	28.779	5767523	7.72	Stigmasterol
56	29.563	7094018	9.50	.gamma.-Sitosterol
57	30.150	116895	0.16	4-Campestene-3-one
58	30.240	2327386	3.12	.beta.-Amyrin
59	30.505	2137025	2.86	24(S)-Ethyl-3.alpha.,5.alpha.-cyclocholest-22(E)-en-6-one
60	30.946	4039535	5.41	.alpha.-Amyrin
61	31.488	2746505	3.68	.gamma.-Sitostenone
62	34.474	1499157	2.01	Lupan-3-ol
		74710274	100.00	

Table S5. One-way ANNOVA Tukey's post hoc statsitical analysis of the analysis

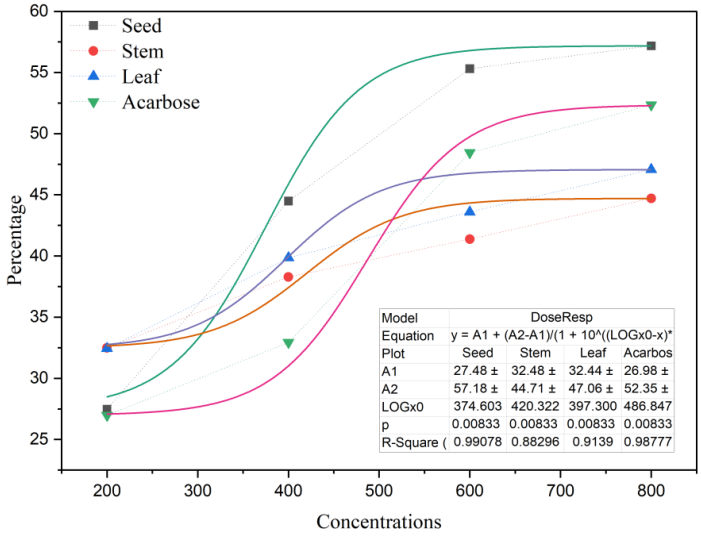
Assay	Group1	Group2	Mean diff	p-adj	Reject (significant)
DPPH	BHT	Leaf	-2.89	0.032	Yes
	BHT	Seed	-2.53	0.06	No
	BHT	Stem	-7.68	<0.001	Yes
	Leaf	Seed	0.37	0.969	No
	Leaf	Stem	-4.78	0.002	Yes
	Seed	Stem	-5.15	0.001	Yes
Protein denaturation	Leaf	Salicylic	6.42	<0.001	Yes
	Leaf	Seed	-5.04	<0.001	Yes
	Leaf	Stem	-2.06	0.003	Yes
	Salicylic	Seed	-11.47	<0.001	Yes
	Salicylic	Stem	-8.48	<0.001	Yes
	Seed	Stem	2.99	<0.001	Yes
α-Amylase inhibition	Acarbose	Leaf	-6.13	<0.001	Yes
	Acarbose	Seed	4.74	<0.001	Yes
	Acarbose	Stem	-8.15	<0.001	Yes
	Leaf	Seed	10.87	<0.001	Yes
	Leaf	Stem	-2.02	0.017	Yes
	Seed	Stem	-12.89	<0.001	Yes

Fig. S1. *Non linear fit curves of the anti-inflammatory assessment*



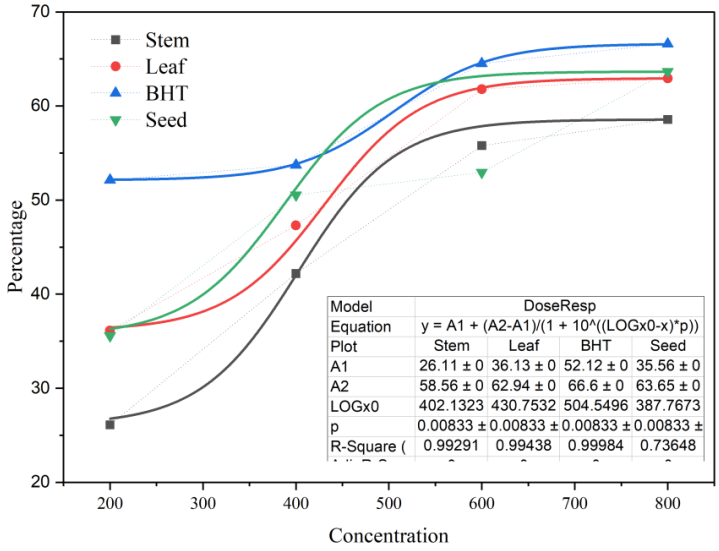
Model	DoseResp			
Equation	y = A1 + (A2-A1)/(1 + 10^((LOGx0-			
Plot	Salicylic	Seed	Stem	Leaf
A1	51.06 ±	51.42 ±	49.45 ±	35.1 ± 0
A2	75.96 ±	63.96 ±	67.95 ±	68.32 ±
LOGx0	390.221	343.150	478.245	356.846
R-Square	0.99659	0.98561	0.9914	0.99021

Fig. S2. *Non linear fit curves of the anti-daibetic assessment*



Model	DoseResp			
Equation	y = A1 + (A2-A1)/(1 + 10^((LOGx0-x)*			
Plot	Seed	Stem	Leaf	Acarbos
A1	27.48 ±	32.48 ±	32.44 ±	26.98 ±
A2	57.18 ±	44.71 ±	47.06 ±	52.35 ±
LOGx0	374.603	420.322	397.300	486.847
p	0.00833	0.00833	0.00833	0.00833
R-Square (	0.99078	0.88296	0.9139	0.98777

Fig. S3. *Non linear fit curves of the anti-oxidant assessment*



Model	DoseResp			
Equation	y = A1 + (A2-A1)/(1 + 10^((LOGx0-x)*p))			
Plot	Stem	Leaf	BHT	Seed
A1	26.11 ± 0	36.13 ± 0	52.12 ± 0	35.56 ± 0
A2	58.56 ± 0	62.94 ± 0	66.6 ± 0	63.65 ± 0
LOGx0	402.1323	430.7532	504.5496	387.7673
p	0.00833 ±	0.00833 ±	0.00833 ±	0.00833 ±
R-Square (	0.99291	0.99438	0.99984	0.73648