Supplementary Materials

Callus Culture of *Ocimum basilicum* L. cv 'Thai Basil' is an Effective Biological System for the Production of Antioxidants Compared to Leaves

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Table S1: Callogenesis, morphology and induction frequency of *O. basilicum* cv Thai basil callus culture under various PGRs.

Table S2: Actual values for PCC (Pearson Correlation Coefficient) showing the relation between the different phytochemicals (TPC: total phenolics content; chicoric acid, rosmarinic acid and caffeic acid) in extracts from Thai basil callus cultures and the different antioxidant assays (*in vitro* cell-free: DPPH, ABTS, FRAP and *in vivo*: CAA (cellular antioxidant assay)).

Table S1. Callogenesis, morphology and induction frequency of *O. basilicum* cv Thai basil callus culture under various PGRs.

#	PGRs (mg/L)	Callus initiation (day)	Callus color	Callus texture	Callus induction frequency (%)
0	Control (MS)	-	-	-	-
1	0.25 GA_3	12	FG	C	28
2	0.5 GA_3	11	FG	C	31
3	1 GA_3	10	FG	C	40
4	2 GA_3	10	FG	C	52
5	5 GA_3	12	B	C	30
6	10 GA_3	12	B	C	25
7	0.25 GA_3+NAA	8	FG	C	75
8	0.5 GA_3+NAA	8	FG	C	73
9	1 GA_3+NAA	8	FG	C	72
10	2 GA_3+NAA	9	SG	C	71
11	5 GA_3+NAA	8	SG	C	72
12	10 GA_3+NAA	8	SG	C	72
13	0.25 BAP	9	LG	C	58
14	0.5 BAP	9	LG	C	60
15	1 BAP	9	LG	C	62
16	2 BAP	9	LG	C	70
17	5 BAP	9	YG	C	20
18	10 BAP	10	YG	C	30
19	0.25 BAP +NAA	8	SG	C	80
20	0.5 BAP + NAA	8	SG	C	86
21	1 BAP +NAA	7	SG	C	90
22	2 BAP +NAA	7	SG	C	92
23	**5 BAP +NAA**	**7**	**SG**	**C**	**95**
24	10 BAP +NAA	8	SG	C	90

C compact, LG light green, FG fresh green, B brown, SG snowy green, YG yellowish green

Table S2: Actual values for PCC (Pearson Correlation Coefficient) showing the relation between the different phytochemicals (TPC: total phenolics content; chicoric acid, rosmarinic acid and caffeic acid) in extracts from Thai basil callus cultures and the different antioxidant assays (*in vitro* cell-free: DPPH, ABTS, FRAP and *in vivo*: CAA (cellular antioxidant assay)).

	TPC	Chicoric acid	Rosmarinic acid	Caffeic acid
Biomass	0.780 ***	0.469 *	0.675 ***	0.259
DPPH	0.172	0.238 *	0.253 *	0.419 *
ABTS	0.675 ***	0.709 ***	0.808 ***	0.551
FRAP	0.081	-0.137 *	-0.193 *	-0.510 *
CAA	0.142	0.187 ***	0.399 **	0.849 **

*** significant $p < 0.001$; ** significant $p < 0.01$; * significant $p < 0.05$.