

1 Supplementary material

2 **Table S1.** Information and 16-OMC content of single green coffee samples.

<b>Sample number</b>	<b>Coffee origin</b>	<b>Variety<sup>a</sup></b>	<b>16-OMC (mg/kg)</b>	<b>SD</b>
SG1	Brazil	Arabica	nd <sup>c</sup>	-
SG2	Ethiopia	Arabica	nd	-
SG3	Guatemala	Arabica	nd	-
SG4	Costa Rican	Arabica	nd	-
SG5	Nicaragua	Arabica	nd	-
SG6	Colombia	Arabica	nd	-
SG7	Papua New Guinea	Arabica	nd	-
SG8	Indonesia	Arabica	nd	-
SG9	Indonesia	Robusta	1615.86	134.03
SG10	Indonesia	Arabica	nd	-
SG11	Brazil	Arabica	nd	-
SG12	Ethiopia	Arabica	nd	-
SG13	Brazil	Arabica	nd	-
SG14	Nicaragua	Arabica	nd	-
SG15	Tanzania	Arabica	nd	-
SG16	Ethiopia	Arabica	nd	-
SG17	Papua New Guinea	Arabica	nd	-
SG18	Indonesia	Robusta	1005.55	43.74
SG19	Guatemala	Arabica	nd	-
SG20	Colombia	Arabica	nd	-
SG21	Costa Rican	Arabica	nd	-
SG22	Brazil	Arabica	nd	-
SG23	Indonesia	Arabica	nd	-
SG24	Nicaragua	Arabica	nd	-
SG25	Guatemala	Arabica	nd	-
SG26	Ethiopia	Arabica	nd	-
SG27	Indonesia	Arabica	nd	-
SG28	Not specified	Robusta	1510.27	110.17
SG29	Not specified	Arabica	nd	-
SG30	Not specified	Arabica	nd	-
SG31	Not specified	Arabica	nd	-
SG32	Not specified	Arabica	nd	-

SG33	Not specified	Arabica	nd	-
SG34	Not specified	Arabica	nd	-
SG35	Not specified	Arabica	nd	-
SG36	Ethiopia	Arabica	nd	-
SG37	Not specified	Arabica	nd	-
SG38	Brazil	Arabica	nd	-
SG39	Not specified	Arabica	nd	-
SG40	Guatemala	Arabica	nd	-
SG41	Not specified	Arabica	nd	-
SG42	Brazil	Cannot identify <sup>b</sup>	nd	-
SG43	Ethiopia	Arabica	nd	-
SG44	Not specified	Arabica	nd	-
SG45	Not specified	Cannot identify <sup>b</sup>	nd	-
SG46	Not specified	Cannot identify <sup>b</sup>	nd	-
SG47	Indonesia	Robusta	1569.76	100.21

<sup>a</sup>Coffee variety was confirmed using DNA identification.

<sup>b</sup>Sample SG42, SG45, and SG 46: cannot identify the species because they are decaf coffee beans.

<sup>c</sup>nd – not detectable.

8 **Table S2.** Information and 16-OMC content of single roast coffee samples.

Sample number	Coffee origin	Labeled species	16-OMC (mg/kg)	SD
SR1	Ethiopia	Arabica	nd <sup>a</sup>	-
SR2	Indonesia	Arabica	nd	-
SR3	Indonesia	Arabica	nd	-
SR4	Colombia	Arabica	nd	-
SR5	Indonesia	Robusta	3208.32	14.90

9 <sup>a</sup>nd – not detectable.

10 **Table S3.** Information and 16-OMC content of ground coffee products.

Sample number	Country of production	Labeled species	16-OMC mg/kg	SD
SP1	Sweden	100% arabica	nd <sup>a</sup>	-
SP2	Germany	100% arabica	nd	-
SP3	Italia	100% arabica	nd	-
SP4	Germany	100% arabica	nd	-
SP5	Taiwan	100% arabica	nd	-
SP6	Italia	100% arabica	nd	-
SP7	Netherlands	100% arabica	nd	-
SP8	Sweden	100% arabica	nd	-
SP9	Italia	100% arabica	nd	-
SP10	Taiwan	100% arabica	nd	-

11 <sup>a</sup>nd – not detectable.

12

13 **Table S4.** Information and 16-OMC content of instant coffee products.

<b>Sample number</b>	<b>Country of production</b>	<b>Labeled species</b>	<b>16-OMC mg/kg</b>	<b>SD</b>
SI1	Japan	-	nd <sup>a</sup>	-
SI2	Poland	100% arabica	nd	-
SI3	Brazil	Arabica	nd	-
SI4	Japan	Arabica	nd	-

14 <sup>a</sup>nd – not detectable.