



**Figure S1.** ATR-FTIR spectral profiles of rosette leaf adaxial surfaces under control (C; solid lines) and cold-acclimated (A; dotted lines) conditions for WT, DEWAX OX1, MYB94 OX, *cer1-4*, *cer2-5 cer2-like1*, *cer6* presented.

**Table S1.** Pearson correlation values between GC-MS and ATR-FTIR data.

	<b>CH<sub>3</sub></b>	<b>CH<sub>2a</sub></b>	<b>CH<sub>2s</sub></b>	<b>CO</b>	<b>CC</b>	<b>RCH<sub>32s</sub></b>	<b>RCO<sub>2s</sub></b>	<b>RCC<sub>2s</sub></b>
C24.FA	0.88	0.63	0.47	0.80	-0.86	0.21	0.21	-0.44
C26.FA	0.91	0.82	0.69	0.59	-0.96	-0.04	-0.06	-0.66
C28.FA	0.64	0.98	0.99	-0.11	-0.85	-0.69	-0.73	-0.98
C30.FA	-0.08	0.57	0.71	-0.56	-0.27	-0.96	-0.85	-0.75
C32.FA	-0.74	-0.23	-0.04	-0.69	0.50	-0.60	-0.44	-0.03
C34.FA	-0.85	-0.51	-0.33	-0.63	0.72	-0.31	-0.20	0.28
C29.H	-0.31	0.38	0.53	-0.64	-0.04	-0.90	-0.76	-0.55
C31.H	-0.63	-0.02	0.15	-0.67	0.32	-0.72	-0.54	-0.19
C33.H	-0.66	-0.05	0.12	-0.68	0.35	-0.71	-0.53	-0.17
C35.H	-0.46	0.16	0.33	-0.61	0.13	-0.81	-0.63	-0.39
C26.OH	-0.95	-0.57	-0.40	-0.76	0.83	-0.32	-0.22	0.38
C28.OH	-0.92	-0.51	-0.33	-0.84	0.80	-0.40	-0.33	0.30
C29.OH	0.65	0.98	0.99	-0.10	-0.85	-0.68	-0.73	-0.98
C30.OH	-0.09	0.55	0.68	-0.61	-0.24	-0.95	-0.86	-0.72
C32.OH	-0.15	0.47	0.62	-0.55	-0.19	-0.91	-0.78	-0.67
C34.OH	-0.41	0.23	0.40	-0.58	0.06	-0.83	-0.65	-0.45

**Table S2.** ATR-FTIR spectroscopic data (partial) of cauline leaf adaxial cuticle surfaces generated under cold acclimation from WT, *cer1-4* and *cer3-6*.

	<b>CH<sub>3</sub> stretching (2966-2950) (CH<sub>3</sub>)</b>	<b>CH<sub>2</sub> asymmetric (2936-2894) (CH<sub>2a</sub>)</b>	<b>CH<sub>2</sub> symmetric (2871-2826) (CH<sub>2s</sub>)</b>
<b>WT A</b>	0.16 ± 0.011	1.23 ± 0.05	0.51 ± 0.02
<b><i>cer1-4</i> A</b>	0.14 ± 0.002	1.36 ± 0.04	0.57 ± 0.02
<b><i>cer3-6</i> A</b>	0.122 ± 0.01* ( <i>p</i> = 0.02; WT A vs. <i>cer3-6A</i> )	0.56 ± 0.08** ( <i>p</i> = 0.003; WT A vs. <i>cer3-6A</i> )	0.186 ± 0.04** ( <i>p</i> = 0.0008; WT A vs. <i>cer3-6A</i> )