

Table S1. Effect of different salts on electrical conductivity, Na<sup>+</sup> concentration, K<sup>+</sup> concentration and Na<sup>+</sup> + K<sup>+</sup> concentration in different parts of *Cochlearia officinalis* plants. Data are means from 3 replicates  $\pm$  SE per treatment.

| Treatment   | Leaf Petiole      | Leaf Blade        | Roots             |
|---|-------------------|-------------------|-------------------|
| Electrical Conductivity (mS m <sup>-1</sup> )       |                   |                   |                   |
| Control   | 160 $\pm$ 5 d     | 145 $\pm$ 13 f    | 79 $\pm$ 9 d      |
| NaCl  | 460 $\pm$ 16 a    | 370 $\pm$ 28 ab   | 130 $\pm$ 23 abcd |
| KCl   | 467 $\pm$ 16 a    | 358 $\pm$ 8 abc   | 180 $\pm$ 10 a    |
| Na <sub>2</sub> CO <sub>3</sub>                     | 237 $\pm$ 7 bcd   | 212 $\pm$ 7 def   | 103 $\pm$ 3 cd    |
| K <sub>2</sub> CO <sub>3</sub>                      | 282 $\pm$ 34 bc   | 272 $\pm$ 35 bcde | 147 $\pm$ 6 abc   |
| NaHCO <sub>3</sub>                                  | 270 $\pm$ 3 bc    | 240 $\pm$ 9 def   | 115 $\pm$ 15 bcd  |
| KHCO <sub>3</sub>                                   | 328 $\pm$ 4 b     | 243 $\pm$ 15 def  | 128 $\pm$ 7 abcd  |
| NaNO <sub>3</sub>                                   | 320 $\pm$ 20 bc   | 297 $\pm$ 13 bcd  | 165 $\pm$ 9 ab    |
| KNO <sub>3</sub>                                    | 438 $\pm$ 25 a    | 418 $\pm$ 32 a    | 167 $\pm$ 2 ab    |
| Na <sub>2</sub> HPO <sub>4</sub>                    | 220 $\pm$ 15 cd   | 190 $\pm$ 20 ef   | 86 $\pm$ 5 d      |
| K <sub>2</sub> HPO <sub>4</sub>                     | 258 $\pm$ 10 bcd  | 192 $\pm$ 12 ef   | 107 $\pm$ 11 cd   |
| Na <sub>2</sub> SO <sub>4</sub>                     | 260 $\pm$ 36 bcd  | 197 $\pm$ 12 def  | 125 $\pm$ 9 bcd   |
| K <sub>2</sub> SO <sub>4</sub>                      | 285 $\pm$ 31 bc   | 263 $\pm$ 22 cde  | 150 $\pm$ 9 abc   |
| Na <sup>+</sup> Concentration (g kg <sup>-1</sup> ) |                   |                   |                   |
| Control   | 9 $\pm$ 2 c       | 9 $\pm$ 2 d       | 9 $\pm$ 2 cd      |
| NaCl  | 130 $\pm$ 15 a    | 155 $\pm$ 14      | 17 $\pm$ 2 bc     |
| KCl   | 4 $\pm$ 1 c       | 4 $\pm$ 0 d       | 5 $\pm$ 0 d       |
| Na <sub>2</sub> CO <sub>3</sub>                     | 70 $\pm$ 10 b     | 90 $\pm$ 8 bc     | 24 $\pm$ 1 ab     |
| K <sub>2</sub> CO <sub>3</sub>                      | 6 $\pm$ 1 c       | 7 $\pm$ 1 d       | 4 $\pm$ 0 d       |
| NaHCO <sub>3</sub>                                  | 92 $\pm$ 10 ab    | 93 $\pm$ 13 bc    | 31 $\pm$ 5 a      |
| KHCO <sub>3</sub>                                   | 5 $\pm$ 1 c       | 5 $\pm$ 1 d       | 3 $\pm$ 0 d       |
| NaNO <sub>3</sub>                                   | 95 $\pm$ 16 ab    | 122 $\pm$ 16 ab   | 26 $\pm$ 3 a      |
| KNO <sub>3</sub>                                    | 6 $\pm$ 2 c       | 7 $\pm$ 2 d       | 6 $\pm$ 1 d       |
| Na <sub>2</sub> HPO <sub>4</sub>                    | 59 $\pm$ 11 b     | 82 $\pm$ 15 bc    | 17 $\pm$ 1 bc     |
| K <sub>2</sub> HPO <sub>4</sub>                     | 3 $\pm$ 1 c       | 4 $\pm$ 1 d       | 3 $\pm$ 0 d       |
| Na <sub>2</sub> SO <sub>4</sub>                     | 60 $\pm$ 5 b      | 77 $\pm$ 6 c      | 23 $\pm$ 1 ab     |
| K <sub>2</sub> SO <sub>4</sub>                      | 3 $\pm$ 0 c       | 4 $\pm$ 1 d       | 5 $\pm$ 0 d       |
| K <sup>+</sup> Concentration (g kg <sup>-1</sup> )  |                   |                   |                   |
| Control   | 78 $\pm$ 7 gh     | 77 $\pm$ 2 efg    | 29 $\pm$ 3 def    |
| NaCl  | 158 $\pm$ 9 defg  | 87 $\pm$ 9 ef     | 44 $\pm$ 3 de     |
| KCl   | 362 $\pm$ 9 a     | 252 $\pm$ 14 a    | 103 $\pm$ 4 a     |
| Na <sub>2</sub> CO <sub>3</sub>                     | 78 $\pm$ 16 gh    | 34 $\pm$ 4 g      | 24 $\pm$ 4 f      |
| K <sub>2</sub> CO <sub>3</sub>                      | 173 $\pm$ 10 cdef | 152 $\pm$ 4 cde   | 72 $\pm$ 2 bc     |
| NaHCO <sub>3</sub>                                  | 55 $\pm$ 9 h      | 26 $\pm$ 5 g      | 24 $\pm$ 3 f      |
| KHCO <sub>3</sub>                                   | 205 $\pm$ 20 cd   | 160 $\pm$ 13 bed  | 68 $\pm$ 4 bc     |
| NaNO <sub>3</sub>                                   | 80 $\pm$ 8 gh     | 56 $\pm$ 5 fg     | 46 $\pm$ 2 d      |

| Treatment  | Leaf Petiole  | Leaf Blade   | Roots          |
|--|---------------|--------------|----------------|
| KNO <sub>3</sub>   | 302 ± 27 ab   | 237 ± 45 ab  | 85 ± 3 b       |
| Na <sub>2</sub> HPO <sub>4</sub>                                       | 93 ± 4 fgh    | 49 ± 1 g     | 28 ± 4 ef      |
| K <sub>2</sub> HPO <sub>4</sub>  | 187 ± 19 cde  | 132 ± 6 cdef | 63 ± 4 c       |
| Na <sub>2</sub> SO <sub>4</sub>  | 103 ± 12 efgh | 50 ± 6 g     | 36 ± 2 de      |
| K <sub>2</sub> SO <sub>4</sub>   | 243 ± 33 bc   | 177 ± 19 abc | 77 ± 3 bc      |
| Na <sup>+</sup> + K <sup>+</sup> Concentration (mol kg <sup>-1</sup> ) |               |              |                |
| Control  | 2.4 ± 0.1 d   | 2.3 ± 0.1 c  | 1.1 ± 0.2 f    |
| NaCl   | 9.7 ± 0.4 a   | 9.0 ± 0.8 a  | 1.9 ± 0.2 bcde |
| KCl  | 9.5 ± 0.3 a   | 6.6 ± 0.4 ab | 2.9 ± 0.1 a    |
| Na <sub>2</sub> CO <sub>3</sub>  | 5.1 ± 0.4 c   | 4.8 ± 0.4 bc | 1.6 ± 0.1 def  |
| K <sub>2</sub> CO <sub>3</sub>   | 4.7 ± 0.3 cd  | 4.2 ± 0.2 bc | 2.0 ± 0.0 bcde |
| NaHCO <sub>3</sub>   | 5.4 ± 0.6 c   | 4.7 ± 0.7 bc | 2.0 ± 0.3 bcde |
| KHCO <sub>3</sub>  | 5.5 ± 0.5 bc  | 4.3 ± 0.4 bc | 1.9 ± 0.1 bcde |
| NaNO <sub>3</sub>  | 6.2 ± 0.7 bc  | 6.7 ± 0.6 ab | 2.3 ± 0.1 abc  |
| KNO <sub>3</sub>   | 8.0 ± 0.6 ab  | 6.4 ± 1.1 ab | 2.4 ± 0.1 ab   |
| Na <sub>2</sub> HPO <sub>4</sub>                                       | 5.0 ± 0.6 cd  | 4.8 ± 0.7 bc | 1.4 ± 0.1 ef   |
| K <sub>2</sub> HPO <sub>4</sub>  | 5.0 ± 0.5 cd  | 3.5 ± 0.1 c  | 1.8 ± 0.1 cdef |
| Na <sub>2</sub> SO <sub>4</sub>  | 5.3 ± 0.3 c   | 4.6 ± 0.2 bc | 1.9 ± 0.1 bcde |
| K <sub>2</sub> SO <sub>4</sub>   | 6.4 ± 0.9 bc  | 4.7 ± 0.5 bc | 2.2 ± 0.1 bcd  |