

**Table S1:** Summary of candidate genes showing no effects in RNAi-knockdown screen. Data corresponding to Table 1.

| Stock ID                  | Gene name                  | Protein function                                                            | Phenotype Soma | Germline       |
|---------------------------|----------------------------|-----------------------------------------------------------------------------|----------------|----------------|
| <b>Proton pumps</b>       |                            |                                                                             |                |                |
| BL40923                   | <i>vha16-1</i><br>(ductin) | V-type H <sup>+</sup> -ATPase subunit                                       | no effects     | no effects*◇   |
| <b>Chloride channels</b>  |                            |                                                                             |                |                |
| BL27034                   | <i>clc-c</i>               | Chloride channel                                                            | no effects     | not determined |
| VDRC4642                  | <i>clc-b</i>               | Chloride channel                                                            | no effects     | not determined |
| <b>NHE</b>                |                            |                                                                             |                |                |
| BL28589                   | <i>nhe1</i>                | Sodium-proton exchanger                                                     | no effects     | not determined |
| VDRC7245                  | <i>nhe1</i>                | Sodium-proton exchanger                                                     | no effects     | not determined |
| <b>Sodium channels</b>    |                            |                                                                             |                |                |
| VDRC8549                  | <i>rpk</i><br>(dGNaC1)     | DEG/epithelial sodium channel                                               | no effects     | not determined |
| <b>Potassium channels</b> |                            |                                                                             |                |                |
| BL25885                   | <i>ork1</i>                | Open-rectifier potassium channel                                            | no effects     | not determined |
| VDRC40953                 | <i>ork1</i>                | Open-rectifier potassium channel                                            | no effects     | not determined |
| VDRC17043                 | <i>mri</i>                 | Voltage-gated potassium channel                                             | no effects     | not determined |
| <b>Calcium channels</b>   |                            |                                                                             |                |                |
| VDRC47073                 | <i>stim</i>                | Calcium-induced calcium release activity/<br>store-operated calcium channel | no effects     | not determined |
| <b>Innexins</b>           |                            |                                                                             |                |                |
| BL42645                   | <i>inx2</i>                | Gap-junction subunit                                                        | no effects     | no effects*◇   |

At least 10 females were scored for each strain.

BL, Bloomington *Drosophila* Stock Center number.

VDRC, Vienna *Drosophila* Resource Center number.

Soma driver: *tj*-Gal4, \* germline driver: MTD-Gal4, ◇ germline driver: mat-tub-Gal4.