**Supplementary Table 3:** C**ell area (µm2) from cross sections.** Significant differences between the steady (S), unreleased (U), and released (R) state are provided based on the T- or U-test; P≤0.005 (bold). df: degree of freedom; E: epidermis; SE: sub-epidermis se (bold): standard error.

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| **Sector** | **State** | **N** | **Mean** | **se** | **Median** | **K-S-Test** | **Sig.** | **Tested groups** | **df** | **T-test or U-Test** | |
| E | S | 42 | 157.28 | 7.39 | 152.03 | 0.085 | 0.200 | S / U | 42/85 | **U = 652; P = 0.000** | |
|  | U | 85 | 100.55 | 4.57 | 96.26 | 0.132 | **0.001** | U / R | 85/71 | **U = 1734.5; P = 0.000** | |
|  | R | 71 | 129.17 | 4.41 | 133.23 | 0.092 | 0.200 | R / S | 111 | **T = -3.487; P = 0.001** | |
| SE | S | 38 | 346.61 | 26.06 | 311.54 | 0.113 | 0.200 | S / U | 49.202 | **T = 4.466; P = 0.000** | |
|  | U | 58 | 221.10 | 10.52 | 218.95 | 0.092 | 0.200 | U / R | 107 | **T = -2.050; P = 0.043** | |
|  | R | 51 | 255.54 | 13.33 | 245.69 | 0.119 | 0.070 | R / S | 56.061 | **T = -3.111; P = 0.003** | |
| 1 | S | 46 | 311.34 | 18.59 | 306.19 | 0.079 | 0.200 | S / U | 133 | T = -0.365; P = 0.716 | |
|  | U | 89 | 320.59 | 15.48 | 304.97 | 0.093 | 0.054 | U / R | 152 | T = -0.191; P = 0.849 | |
|  | R | 65 | 324.91 | 15.87 | 325.14 | 0.074 | 0.200 | R / S | 109 | T = 0.554; P = 0.581 | |
| 2 | S | 61 | 302.46 | 15.96 | 271.35 | 0.107 | 0.081 | S / U | 163 | **T = -4.967; P = 0.000** | |
|  | U | 104 | 416.23 | 14.83 | 396.49 | 0.086 | 0.057 | U / R | 61/104 | U = 4601.5; P = 0.477 | |
|  | R | 94 | 407.91 | 14.65 | 396.18 | 0.098 | **0.026** | R / S | 94/61 | **U = 1647.5; P = 0.000** | |
| 3 | S | 66 | 351.16 | 17.02 | 349.28 | 0.075 | 0.200 | S / U | 173 | **T = -3.798; P = 0.000** | |
|  | U | 109 | 436.88 | 14.22 | 427.81 | 0.064 | 0.200 | U / R | 109/97 | U = 5020; P = 0.533 | |
|  | R | 97 | 428.56 | 18.32 | 423.53 | 0.108 | **0.007** | R / S | 97/66 | **U = 2458.5; P = 0.012** | |
| 4 | S | 62 | 386.18 | 18.47 | 378.00 | 0.091 | 0.200 | S / U | 174 | T = -0.508; P = 0.612 | |
|  | U | 114 | 396.69 | 11.50 | 385.95 | 0.049 | 0.200 | U / R | 220 | T = -1.341; P = 0.181 | |
|  | R | 108 | 421.03 | 14.15 | 416.96 | 0.056 | 0.200 | R / S | 168 | T = 1.493; P = 0.137 | |
| 5 | S | 62 | 329.25 | 14.04 | 341.79 | 0.082 | 0.200 | S / U | 187 | T = -0.403; P = 0.687 | |
|  | U | 127 | 336.36 | 10.24 | 322.69 | 0.079 | 0.053 | U / R | 217.992 | **T = -3.207; P = 0.002** | |
|  | R | 114 | 390.18 | 13.30 | 368.99 | 0.078 | 0.085 | R / S | 174 | **T = 2.929; P = 0.004** | |
| 6 | S | 62 | 339.67 | 15.75 | 316.89 | 0.088 | 0.200 | S / U | 62/127 | U = 3889.5; P = 0.893 | |
|  | U | 127 | 337.66 | 10.07 | 320.55 | 0.084 | **0.029** | U / R | 127/120 | U = 7007; P = 0.275 | |
|  | R | 120 | 326.14 | 10.79 | 307.41 | 0.086 | **0.031** | R / S | 120/62 | U = 3488; P = 0.491 | |
| 7 | S | 62 | 322.69 | 15.20 | 317.80 | 0.085 | 0.200 | S / U | 184 | T = -1.802; P = 0.073 | |
|  | U | 124 | 353.85 | 9.58 | 357.83 | 0.036 | 0.200 | U / R | 244 | T = 0.990; P = 0.323 | |
|  | R | 122 | 339.37 | 11.07 | 337.36 | 0.077 | 0.073 | R / S | 182 | T = 0.881; P = 0.380 | |
| 8 | S | 71 | 292.63 | 13.32 | 280.83 | 0.069 | 0.200 | S / U | 205 | T = -1.132; P = 0.259 | |
|  | U | 136 | 312.89 | 10.90 | 294.88 | 0.073 | 0.076 | U / R | 136/129 | U = 8728; P = 0.944 | |
|  | R | 129 | 311.20 | 9.82 | 297.33 | 0.095 | **0.006** | R / S | 129/71 | U = 4243; P = 0.391 | |
| 9 | S | 69 | 260.26 | 12.96 | 238.05 | 0.092 | 0.200 | S / U | 206 | T = -1.772; P = 0.078 | |
|  | U | 139 | 287.98 | 8.96 | 281.13 | 0.053 | 0.200 | U / R | 263 | T = -0.659; P = 0.511 | |
|  | R | 126 | 296.55 | 9.43 | 288.16 | 0.06 | 0.200 | R / S | 193 | **T = 2.276; P = 0.024** | |
| 10 | S | 68 | 209.46 | 11.42 | 204.43 | 0.08 | 0.200 | S / U | 190 | T = -0.421; P = 0.674 | |
|  | U | 124 | 214.89 | 7.22 | 206.72 | 0.063 | 0.200 | U / R | 124/105 | U = 6179; P = 0.508 | |
|  | R | 105 | 221.72 | 7.43 | 212.38 | 0.087 | **0.050** | R / S | 105/68 | U = 3251; P = 0.321 | |
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