**Supplementary files for -** **ROCK and the actomyosin network control biomineral growth and morphology during sea urchin skeletogenesis**

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**This PDF file includes:** Supplementary files 1a-1d

**Supplementary file 1a**

|  |  |  |
| --- | --- | --- |
| **Condition** | **# replicates** | **# embryos scored** |
| DMSO (control) | 8 | 438 |
| Y0 10µM | 3 | 122 |
| Y25 10µM | 3 | 109 |
| Y0 30µM | 3 | 120 |
| Y20 30µM | 3 | 103 |
| Y25 30µM | 3 | 108 |
| y0 40µM | 3 | 93 |
| y20 40µM | 3 | 123 |
| y25 40µM | 3 | 101 |
| y0 80µM | 8 | 377 |
| y20 80µM | 3 | 116 |
| y25 80µM | 7 | 369 |
| Wash 80µM | 5 | 268 |

**Supplementary file 1b**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **# of spicules** | **Avrg. Length** | **Stdev. Length** | **Avrg. Thickness** | **Stdev. Thickness** | **Avrg. Volume** | **Stdev. Volume** | **Avrg. Area** | **Stdev. Area** |
| **Control\_48h** | 44 | 497.2 | 62.43 | 3.7 | 0.44 | 6860.28 | 1999.61 | 5822.46 | 1121.57 |
| **Control\_72h** | 51 | 697.4 | 71.69 | 4.4 | 0.37 | 14673.2 | 2747.3 | 9896.75 | 1199.63 |
| **Y25\_48h** | 93 | 187.93 | 50.18 | 3.92 | 0.53 | 2925.29 | 973.86 | 2324.51 | 606.62 |
| **Y25\_72h** | 94 | 276.29 | 81.8 | 4.46 | 0.65 | 5799.48 | 2408.91 | 4002.78 | 1250.25 |

**Supplementary file 1c**

|  |  |
| --- | --- |
|  | **Y25 48hpf** |
| **Control 48hpf** | Length: p=2.2e-63, t=31.0771 |
|  | Thickness: p=0.02, t=-2.342 |
|  | Volume: p=8.1e-32, t=15.5207 |
|  | Area: p=6.3e-50, t=23.6854 |
|  | **Y25 72hpf** |
| **Control 72hpf** | Length: p=3.9e-65, t=30.8792 |
|  | Thickness: p=0.5, t=-0.6798 |
|  | Volume: p=2.2e-43, t=20.1038 |
|  | Area: p=1.2e-58, t=27.4415 |

**Supplementary file 1d**

|  |  |  |
| --- | --- | --- |
| **Treatment** | **# replicates** | **# scored embryos** |
| **DMSO (control)** | 5 | 176 |
| **LatA >20hpf** | 4 | 152 |
| **LatA >25hpf** | 4 | 140 |
| **Bleb >20hpf** | 4 | 162 |
| **Bleb>25hpf** | 4 | 144 |
| **LatA+Bleb>20hpf** | 3 | 96 |
| **LatA+Bleb>25hpf** | 3 | 114 |