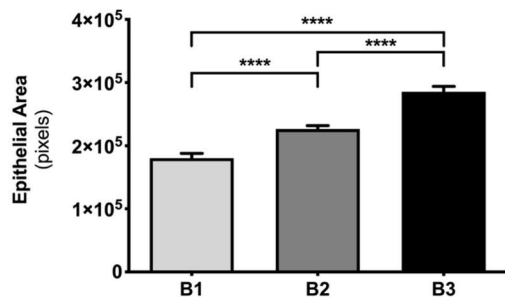
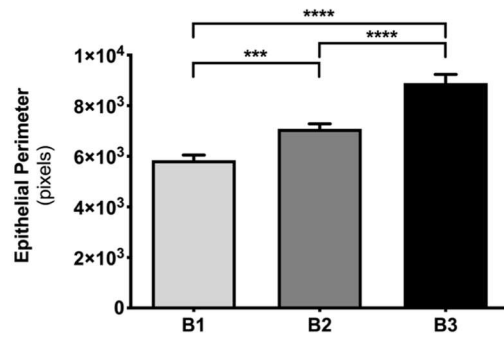


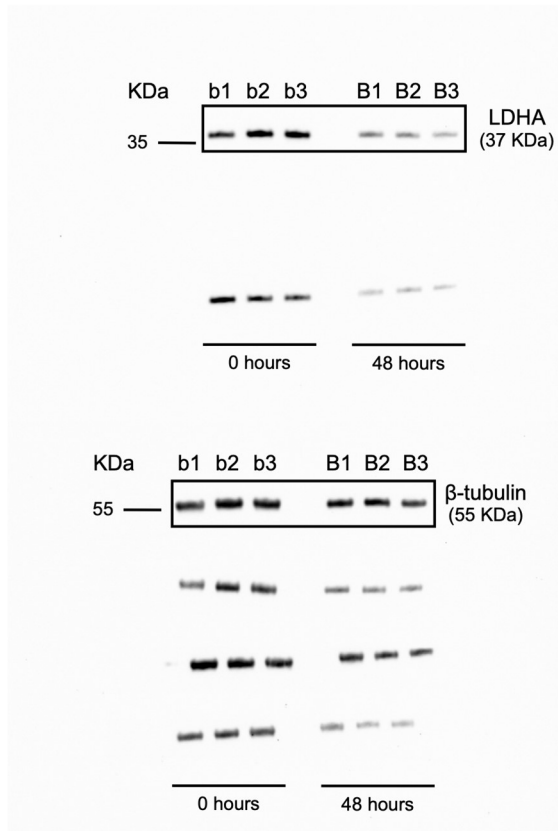
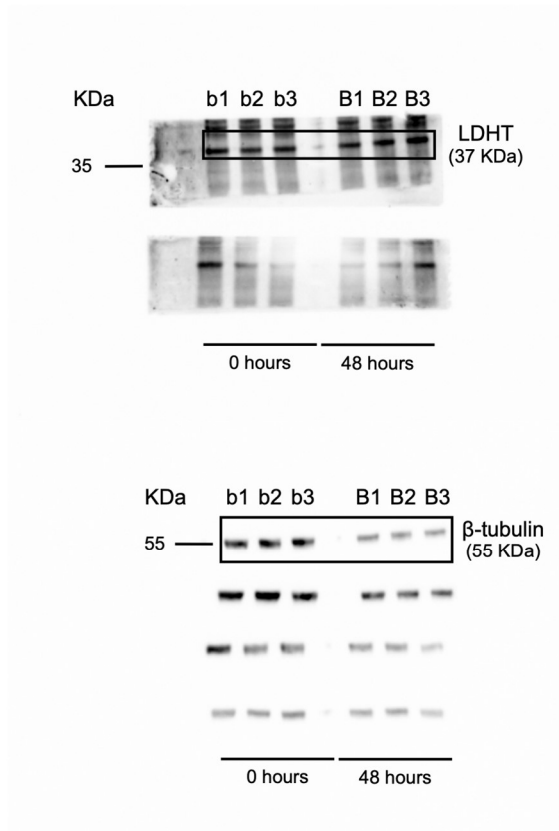
## Supplementary information

**Table S1.** Primers and qPCR conditions. Primer sequences forward (Fw) and reverse (Rv), corresponding PCR product size, annealing temperature and number of cycles.

| Gene           | Sequence 5'-3'               | Size (bp) | Annealing T (°C) | Cycles |
|----------------|------------------------------|-----------|------------------|--------|
| <i>actin-β</i> | Fw – CTTCTAAACCGGACTGTTACCA  | 100       | 58               | 30     |
|                | Rv – AAACAATAAAGCCATGCCAATCT |           |                  |        |
| <i>18s</i>     | Fw – TCTTTCTCGATTCCGTGGGT    | 157       | 58               | 30     |
|                | Rv – AACGCCACTTGTCCCTCTAC    |           |                  |        |
| <i>glut1</i>   | Fw – GCAGTTCGGCTACAACACCG    | 222       | 58               | 40     |
|                | Rv – ATCAGCATGGAGTTACGCCG    |           |                  |        |
| <i>glut3</i>   | Fw – GTACCGTTCGGTTCGGTTAG    | 115       | 62               | 35     |
|                | Rv – AATGGCAGCAACAGAAACAGC   |           |                  |        |
| <i>glut8</i>   | Fw – AGCTTTGGCTTCGTGCTAGG    | 153       | 58               | 40     |
|                | Rv – GTAGCCTCCCAGTATTCCTCC   |           |                  |        |
| <i>mct1</i>    | Fw – TCGGAGCCTTCATCTCCATTG   | 234       | 58               | 40     |
|                | Rv – CAATCAAACCACACCCCGAG    |           |                  |        |
| <i>mct3</i>    | Fw – CATCGGGCTGGTCCTACTTA    | 183       | 58               | 40     |
|                | Rv – GTCTTCTCCCTCGGTTACAG    |           |                  |        |
| <i>mct4</i>    | Fw – GGATCTGCACTCAGGGAACC    | 151       | 62               | 40     |
|                | Rv – GGAAAGGCGTAGGAGAACCC    |           |                  |        |
| <i>mct8</i>    | Fw – TTCTTCTGCTCTCCATCGT     | 218       | 58               | 40     |
|                | Rv – CGACGCTTGAAGTAGTGACC    |           |                  |        |
| <i>hk1</i>     | Fw – CTGGCCTACTACTTCACCGAG   | 166       | 58               | 35     |
|                | Rv – TCACTGTCGCTGTTGGGTTA    |           |                  |        |
| <i>hk2</i>     | Fw – GCGCAGAAGGTGGACAAATAC   | 192       | 58               | 40     |
|                | Rv – TGCCAAGAAGTCTCCGTCTT    |           |                  |        |
| <i>pfk1</i>    | Fw - CGTGGGAGGAGCTTTGAGAA    | 236       | 56               | 40     |
|                | Rv - CAGCCACCTCACGTATCTG     |           |                  |        |
| <i>ldha</i>    | Fw – AAGACGCCGGCAGTACAC      | 285       | 58               | 35     |
|                | Rv – GAGTGTGCAGTCACGCTGTA    |           |                  |        |
| <i>ldhb</i>    | Fw – ACTTGGTATCCACCCAACCAG   | 244       | 54               | 40     |
|                | Rv – CTCAGCAACGCTAAGACCAAT   |           |                  |        |
| <i>pdha</i>    | Fw – TCACGGCTTTACCTATGCCC    | 153       | 58               | 35     |
|                | Rv – ACCTGAGCACCGACAATACC    |           |                  |        |
| <i>pdhb</i>    | Fw – GCTCAGAAGATGCTAAAGGGC   | 220       | 58               | 40     |
|                | Rv – GCTTCTAAACAGTGCCCAACAG  |           |                  |        |

**a****b**

**Figure S1.** Morphometric analysis of lung explants. The imaging program AxioVision Rel. 4.9.1 (Carl Zeiss, Germany) was used to outline lung explants at 48 hours (B1, B2, B3) and to calculate **a** Epithelial area and **b** Epithelial perimeter. After 48 hours in culture, explants display a progressive increase of the epithelial compartment when compared between stages (B1 vs B2 vs B3). Results are expressed as mean  $\pm$  SEM ( $n > 10$ /stage/condition). One-Way ANOVA and Fisher's LSD test were performed. Significantly different results are indicated as: \*\*\*  $p < 0.001$  \*\*\*\*  $p < 0.0001$ .

**a****b**

**Figure S2.** Uncropped images of LDHA and total LDH immunoblot represented in Fig. 6 of the manuscript. Representative immunoblot for **a** LDHA and **b** LDHT (LDHA and LDHB contribution) of pooled-tissue samples of embryonic lungs at 0 hours (b1, b2, b3) and 48 hours (B1, B2, B3) of explant culture. Loading control was performed using  $\beta$ -tubulin, lower panel of the image (55 KDa). LDHA and LDHT correspond to 37 KDa.