

Table S1. Recipe of the lung cancer organoid culture media (LCOM)

| Reagents | Source | Catalog No. | Final concentration |
|-------------------------|-------------------------|-------------|---------------------|
| DMEM/F12 | ThermoFisher Scientific | 11320-033 | |
| GlutaMAX | Gibco | 35050-061 | 1%(v/v) |
| HEPES | Gibco | 15630-080 | 10 mM |
| Penicillin/Streptomycin | Hyclone | SV30010 | 1%(v/v) |
| B-27 Supplement | Invitrogen | 17504044 | 2% (v/v) |
| N2 Supplement | Invitrogen | 17502048 | 1% (v/v) |
| Nicotinamide | Selleckchem | 1899 | 5 mM |
| N-Acetyl-L-cysteine | Selleckchem | S1632 | 1 mM |
| Y-27632 | Selleckchem | S1049 | 10 μ M |
| EGF | Peptotech | AF-100-15 | 50 ng/mL |
| SB202190 | Selleckchem | S1077 | 3 μ M |
| A83-01 | Tocris | 2939 | 5 μ M |
| Forskolin | Selleckchem | 2449 | 10 μ M |
| Dexamethasone | Selleckchem | 1322 | 3 nM |

Table S2. Primer sequences for qPCR analysis of selected genes and control.

| Primer name | Sequence (5'-3') |
|-------------|---------------------------|
| GAPDH-F | GTCTGAACCATGAGAAGTATGA |
| GAPDH-R | CTTCCACGATACCAAAGTTGT |
| Bax-F | GTCAGCTGCCACTCGGAAA |
| Bax-R | AGTAACATGGAGCTGCAGAGGAT |
| Bcl-2-F | TCAGAGACAGCCAGGAGAAATCA |
| Bcl-2-R | CCTGTGGATGACTGAGTACCTGAA |
| Bcl-XL-F | ATGGCAGCAGTAAAGCAAGC |
| Bcl-XL-R | CGGAAGAGTTTCATTCACTACCTGT |
| Bid-F | ACTGGTGTTTGGCTTCCTCC |
| Bid-R | ATTCTTCCCAAGCGGGAGTG |
| SOD1-F | CTGAAGGCCTGCATGGATTC |
| SOD1-R | CCAAGTCTCCAACATGCCTCTC |
| p53-F | CCCAAGCAATGGATGATTTGA |
| p53-R | GGCATTCTGGGAGCTTCATCT |