# Supplementary Materials

**Table S1.** Summarized comparison of gene expression profiles observed between *in silico* analysis of human Barrett's esophagus (BE) and squamous epithelium biopsies, as well as untreated wild type cell lines EPC-2, BAR-T, OE33 and OE19. Arrow-up (↑) and blue background indicate significant upregulation; arrow-down (↓) and pink background indicate significant downregulation; double-sided arrow (↔) and green background indicate no changes of mRNA expression.

| Gene symbol | Clinical: BE vs squamous epithelium | Experimental: BAR-T vs EPC2 | Experimental: OE33 vs OE19 |
|---|---|---|---|
| *FZD5* | ↑ | ↑ | ↑ |
| *IFNGR1* | ↑ | ↔ | ↑ |
| *IL1A* | ↓ | ↑ | ↓ |
| *IL1B* | ↑ | ↑ | ↓ |
| *IL1R1* | ↔ | ↓ | ↑ |
| *IL1RN* | ↓ | ↓ | ↔ |
| *KRT15* | ↓ | ↔ | ↓ |
| *KRT18* | ↑ | ↑ | ↔ |
| *KRT4* | ↓ | ↔ | ↑ |
| *KRT8* | ↑ | ↑ | ↔ |
| *NFKBIL1* | ↓ | ↓ | ↔ |
| *PTGS1* | ↓ | ↓ | ↑ |
| *PTGS2* | ↑ | ↑ | ↓ |
| *SOCS3* | ↑ | ↑ | ↓ |
| *SOX15* | ↓ | ↓ | ↔ |
| *SOX4* | ↑ | ↑ | ↔ |
| *SOX9* | ↑ | ↑ | ↓ |
| *TIMP1* | ↑ | ↑ | ↓ |
| *TMEM2* | ↑ | ↔ | ↑ |
| *TNFRSF10B* | ↑ | ↑ | ↔ |

**Table S2.** The list of selected human genes (and reference genes) and the corresponding TaqMan assays.

| No. | Gene name and symbol | Assay ID | NCBI gene reference |
|---|---|---|---|
| 1. | Glyceraldehyde-3-phosphate dehydrogenase, *GAPDH* | Hs99999905_m1 | NM_002046.5 |
| 2. | Frizzled class receptor 5, *FZD5* | Hs00361869_g1 | NM_003468.3 |
| 3. | Interferon gamma receptor 1, *IFNGR1* | Hs00988304_m1 | NM_000416.2 |
| 4. | Interleukin 1 alpha, *IL-1α* | Hs00174092_m1 | NM_000575.4 |
| 5. | Interleukin 1 beta, *IL-1β* | Hs01555410_m1 | NM_000576.2 |
| 6. | Keratin 4, *KRT4* | Hs00361611_m1 | NM_002272.3 |
| 7. | Keratin 8, *KRT8* | Hs01670053_m1 | NM_001256282.1 |
| 8. | Keratin 15, *KRT15* | Hs00267035_m1 | NM_002275.3 |
| 9. | Keratin 18, *KRT18* | Hs02827483_g1 | NM_000224.2 |
| 10. | Interleukin 1 receptor type 1, *IL1R1* | Hs00991010_m1 | NM_000877.3 |
| 11. | Interleukin 1 receptor antagonist *IL1RN* | Hs00361869_g1 | NM_000577.4 |
| 12. | Nuclear factor of Kappa Light Polypeptide gene enhancer in B-cells inhibitor-like protein- 1, *NFKBIL1* | Hs00428211_m1 | NM_005007.3 |
| 13. | Prostaglandin Endoperoxide Synthase 1 *PTGS1* | Hs00924808_m1 | NM_000962.3 |
| 14. | Prostaglandin Endoperoxide Synthase 2 *PTGS2* | Hs00153133_m1 | NM_000963.3 |
| 15. | Suppressor of cytokine signaling 3, *SOCS3* | Hs01000485_g1 | NM_003955.4 |
| 16. | Sex determinating region Y box- 4, *SOX4* | Hs00268388_s1 | NM_003107.2 |
| 17. | Sex determinating region Y box- 9, *SOX9* | Hs01001343_g1 | NM_000346.3 |
| 18. | Sex determinating region Y box- 15, *SOX15* | Hs00199511_m1 | NM_006942.1 |
| 19. | Tissue Inhibitor Of Metalloproteinases 1, *TIMP1* | Hs99999139_m1 | NM_003254.2 |
| 20. | Transmembrane protein 2, *TMEM2* | Hs00910523_m1 | NM_001135820.1 |
| 21. | Tumor Necrosis Factor Receptor Superfamily Member 10B, *TNFRSF10B* | Hs00366278_m1 | NM_003842.5 |