

Supplementary materials

THE VOLTAGE-GATED SODIUM CHANNEL BETA4 SUBUNIT MAINTAINS EPITHELIAL PHENOTYPE IN MAMMARY CELLS

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Supplementary Figure 1: Viability and proliferation of MCF10A CTL and MCF10A Crβ4 cells

a, The expression of the *SCN5A* gene, encoding for Nav1.5 was monitored by RT-qPCR in MDA-MB-231 breast cancer cells, in MCF10A CTL and MCF10A Crβ4 mammary non-cancer cells. (n=5 independent experiments). ***, p<0.001 as compared to MCF10A CTL or MCF10A Crβ4. Ns, stands for no statistical difference between MCF10A CTL and MCF10A Crβ4. **b**, MCF10A CTL and MCF10A Crβ4 cell viability was measured by the MTT assay 4 days after seeding the cells at different densities (n=6 independent experiments). *, p<0.05 (Wilcoxon test). **c**, Labelling with 10 μM 5-Ethynyl-2'deoxyuridine (EdU, 10 μM) in MCF10A CTL and MCF10A Crβ4 cells was assessed by flow cytometry after 3 days of culture. **d**, Analyses of results acquired as in (b) from 5 independent experiments. *, p<0.05 (Mann-Whitney rank sum test).

Supplementary Figure 2: uncropped WB films shown in a, Figure 1b, b, Figure 1c, c, Figure 3c, d, Figure 3d, e, Figure 3f, f, Figure 3g, g, Figure 3h, h, Figure 4b, and f, Figure 4c.