Figure S1. Cells were treated with ionomycin (a calcium ionophore). The increase in cellular Ca^{2+} levels was measured by flow cytometry.

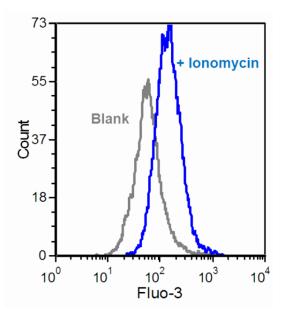


Figure S2. Membrane repair leads to proliferation of Hs 738.St/Int cells. (**A**) Hs 738.St/Int cells were electroporated twice at 100 μ F (at 5-minute intervals). Cells (1 × 10³ cells/well) were plated in a 16-well microtiter E-plate. Data were normalized at 10 h, which was the duration of cell adherence. *P* < 0.05 vs. control treatment values. (**B**) FDx (green fluorescence) can be detected in damaged cells, but not in wild-type (WT) which were non-electroporated cells, suggesting membrane injury due to electroporation. The damaged cells participate in a membrane-repair response that leads to cell proliferation (bottom right panel). Scale bar, 50 µm. Trans, transmission.

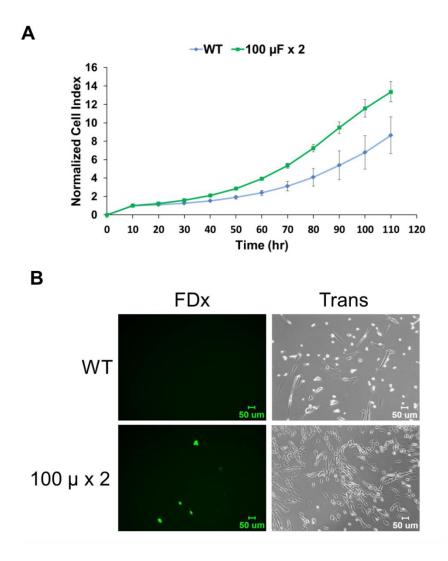
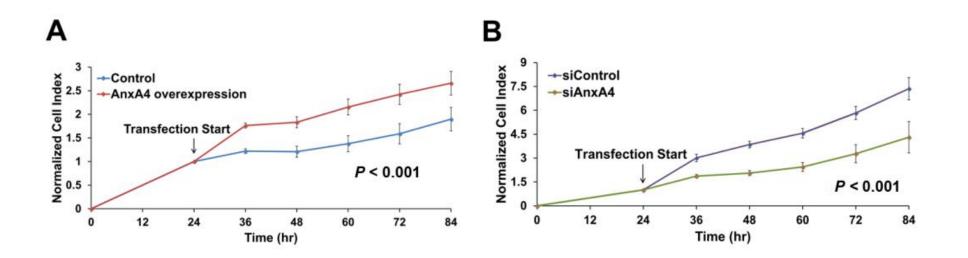


Figure S3. AnxA4 promotes cell proliferation. After incubation for 24 h, the cell growth rate of (A) cells overexpressing AnxA4, and (B) cells containing AnxA4-specific siRNA were measured. It was observed that AnxA4 regulated the cell index in a time-dependent manner. (A and B) Data were normalized from measurements taken at 24 h, which was when transfection was initiated. The detection time from three independent experiments is represented as mean \pm SD, n=3. *P* values were calculated using the two-sample Kolmogorov-Smirnov test.



| Primer | Sequence $(5' \rightarrow 3')$ | Purpose |
|----------|------------------------------------|---------------------------------|
| anxa4-F | atataagcttgccaccatggccatggcaaccaaa | Constructing pcDNA 3.1(+)/AnxA4 |
| anxa4-R | gcgcgggaattettaateateteeteeaca | Constructing pcDNA 3.1(+)/AnxA4 |
| anxa4-F2 | atataagcttgccaccatggccatggcaaccaaa | Constructing pEGFP-C1/AnxA4 |
| anxa4-R2 | agcgcgcctgcagttaatcatctcctccaca | Constructing pEGFP-C1/AnxA4 |
| vacA-F | gagtgaataatcaagtgggtgg | Constructing vacA mutant |
| vacA-R | tcatcgcattactcaagctcaa | Constructing vacA mutant |
| vacA-F2 | ggcacgattaaagtgggagg | Checking vacA mutant |
| vacA-R2 | gttagcccaaacattggtagg | Checking vacA mutant |

Table S1. List of primer sequences used for construction.