



Fig. S1: Nyquist diagram of HT-29/B6 impedance spectra

Four consecutive impedance spectra of an HT-29/B6 cell layer mounted in an Ussing chamber were recorded at 42 different frequencies, f (◆). As an example, impedance magnitude $|Z|$ and phase angle θ between transepithelial alternating current (AC) and voltage are depicted for $f \approx 33$ Hz (red arrow). Real (Z^{re}) and imaginary part (Z^{im}) of the complex impedance (total impedance $Z^{\text{T}}(f) = Z^{\text{re}}(f) + i \cdot Z^{\text{im}}(f)$, $i = \sqrt{-1}$) are the projections onto the x- and y-axis.

For $f \rightarrow 0$ (DC conditions), $\theta \rightarrow 0^\circ$. For $f \rightarrow \infty$, $\theta \rightarrow 90^\circ$.