

Table S4: Error of test data for all 8 employed neural networks, determined after ANN training was completed. For a performance comparison with reference methods M1 and M2 see Fig. 5a and 5b.

| | Average error [$\Omega \cdot \text{cm}^2$] | Minimum error [$\Omega \cdot \text{cm}^2$] | Maximum error [$\Omega \cdot \text{cm}^2$] |
|--|--|--|--|
| HT-29/B6 | | | |
| $\text{ANN}_{\text{sub}}^{\text{HT}}$ | ± 0.53 | -3.40 | +2.75 |
| $\text{ANN}_{\text{sub}}^{\text{HT+EGTA}}$ | ± 0.55 | -3.04 | +2.57 |
| $\text{ANN}_{\text{epi}}^{\text{HT}}$ | ± 3.11 | -14.17 | +34.84 |
| $\text{ANN}_{\text{epi}}^{\text{HT+EGTA}}$ | ± 1.17 | -5.54 | +11.36 |
| IPEC-J2 | | | |
| $\text{ANN}_{\text{sub}}^{\text{IPEC}}$ | ± 0.79 | -4.38 | +4.81 |
| $\text{ANN}_{\text{sub}}^{\text{IPEC+EGTA}}$ | ± 0.73 | -5.78 | 3.55 |
| $\text{ANN}_{\text{epi}}^{\text{IPEC}}$ | ± 24.52 | -98.88 | +192.93 |
| $\text{ANN}_{\text{epi}}^{\text{IPEC+EGTA}}$ | ± 2.42 | -10.04 | +19.96 |