

**Table S5:** Characteristics of measured datasets.

	<b>HT</b>	<b>HT+EGTA</b>	<b>IPEC</b>	<b>IPEC+EGTA</b>
Number of samples	281	112	166	26
Number of features per sample	84	84	84	84
Exact target values known	No	No	No	No
Range of target domain A (M1)	2.1 – 28	0.8 – 29	-17 – 44	-10 – 20
Range of target domain A (M2)	-33 – 35	-0.3 – 34	-66 – 89	-15 – 13
Range of target domain B (M1)	231 – 1228	7 – 263	640 – 10962	26 – 586
Range of target domain B (M2)	250 – 1233	3.5 – 250	623 – 11026	26 – 608

Target domain A refers to subepithelial resistance ( $R^{\text{sub}}$ ), target domain B to epithelial resistance ( $R^{\text{epi}}$ ). Range of target domains approximated using reference methods M1 and M2 (cf. methods and materials section).