Figure 4 - supplementary file 1:

Table 1: Model parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | **symbol** | **Unit** | **Value** | **Ref.** |
| Outer surface charge density |  | Cm-2 | -0.004 | (Zhang et al., 2001) |
| inner surface charge density |  | Cm-2 | -0.018 | (Zhang et al., 2001) |
| Dielectric constant of a lipid bilayer |  | - | 2.5 ∙ ε0 | (Shapiro et al., 2012) |
| Dielectric constant of a bulk solution |  | - | 93 ∙ ε0 | (Dass, 1986) |
| Dielectric constant of free space | ε0 | - | 8.8540 e-12 |  |
| HEK293 cell surface area |  | m2 | 2.8274e-09 |  |
| Typical capacitance of a HEK 293 cell |  | F | 30 e-12 |  |
| Ion valence | *z* | - | ±1 |  |
| Ion concentration | *c* | mM | 150 e-3, 150 e-3 |  |
| Membrane thickness |  | m | 3 e-9 | (Shapiro et al., 2012) |
| Amplitude of a stimulus voltage |  | mV | 80 |  |
| Faraday constant | *F* | - | 96485 |  |
| Ideal gas constant | *R* | - | 8.314 |  |
| Absolute temperature of a solution | *T* | K | 293 |  |

**References:**

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Zhang, P., Keleshian, A.M., and Sachs, F. (2001). Voltage-induced membrane movement. Nature 413: 428–432.