Supplementary Material

**Figure S1:** Strength-Duration (S-D) curve for BC activation based on the threshold defined as the [Ca], level exceeding 3 μM. Calculated values are shown by circles, experimental data from (Boinagrov et al., 2014) - by triangular markers, and solid lines show Weiss equation fit into each dataset.

**Figure S2:** Stimulation by point source and uniform field. (A) Extracellular potential vs. the z-distance of each compartment of the BC (morphology shown on top) for point source (red) and uniform field (green) stimulation. (B) Typical traces of the membrane potential over time for the somatic (red), one terminal (blue) and one dendritic compartment (black) for stimulation with a point source (solid lines) and uniform field (dashed lines). The pulse (4 ms, 4 μA) is indicated at the bottom. (C) Maximum membrane depolarization in synaptic terminals (diagram on top) for stimulation amplitudes ranging from 0.1 to 5 μA for point source vs. uniform field stimulation.