

Table S1. Biophysical and Physiological Parameters Used in Simulations

Parameter	Squid Axon [S1, S24]	Pyramidal Axon Collateral [S26–S28]
Membrane capacitance $C_m$ ( $\mu\text{Fcm}^2$ )	1	1
Membrane leak conductance		
$g_{\text{Leak}} = 1/R_{\text{Leak}}$ ( $\Omega\text{cm}^2$ )	0.334	0.02
Axoplasmic resistance $R_a$ ( $\Omega\text{cm}$ )	35.4	100
$R_a$ base temperature ( $^{\circ}\text{C}$ )	6.3	23
$R_a$ $Q_{10}$	1.4	1.4
Na reversal potential $E_{\text{Na}}$ (mV)	50	55
Na channel density $\gamma_{\text{Na}}$ ( $\mu\text{m}^{-2}$ )	60	68
Single Na channel conductance $\gamma$ (pS)	20	14.8
Na conductance base temperature ( $^{\circ}\text{C}$ )	6.3	23
Na conductance $Q_{10}$	1.4	1.4
Na kinetics base temperature ( $^{\circ}\text{C}$ )	6.3	23
Na activation kinetics $Q_{10}$	3	2.2
Na inactivation kinetics $Q_{10}$	3	2.9
K reversal potential $E_K$ (mV)	-77	-80
K channel density $g_K$ ( $\mu\text{m}^{-2}$ )	18	8
Single K channel conductance $\gamma_K$ (pS)	20	20
K kinetics base temperature ( $^{\circ}\text{C}$ )	6.3	24
K activation kinetics $Q_{10}$	3	3