Table S2. Ion-Channel Kinetics

Parameter	Squid Axon [S24]	Pyramidal Axon Collateral [S26–S28]
Na activation forward rate function (V [mV]) (ms^{-1})	$\alpha_m(V) = 0.1\ (-V - 40)/(1 - Exp[(-40 - V)/10])$	$\alpha_m(V) = 0.182(V + 47)/(1 - Exp[-(v + 47)/6])$
Na activation backward rate function (V [mV]) (ms^{-1})	$\beta_m(V) = 4\ Exp[-(V - 65)/18]$	$\beta_m(V) = 0.124(-V - 47)/(1 - Exp[(-v - 47)/6])$
Na inactivation forward rate functions (V [mV]) (ms^{-1})	$\alpha_h(V) = 0.07\ Exp[-(V - 65)/20]$	$\alpha_h(V) = -0.015(V + 69)/(1 - Exp[-(v + 69)/6])$
Na inactivation backward rate functions (V [mV]) (ms^{-1})	$\beta_h(V) = 1/(Exp[(-35 - V)/10] + 1)$	$\beta_h(V) = -0.015(-V - 69/(1 - Exp[(-V - 69)/6])$
K activation forward rate functions (V [mV]) (ms^{-1})	$\alpha_n(V) = 0.01\ (-55 - V)/(1 - Exp[(-55 - V)/10])$	$\alpha_n(V) = (-V - 53)/(100(1 - Exp[(-5.3 - V)/10]))$
K activation backward rate functions (V [mV]) (ms^{-1})	$\beta_n(V) = 0.125\ Exp[-(V - 65)/80]$	$\beta_n(V) = 0.125\ Exp[-(V - 63)\ /\ 80]$

Kinetics of Na^+ channels and delayed rectifier K^+ channels, on the basis of squid axon and rodent cortical data. Other types of K channels appear not to be present or only in very low densities in both axons [S28, S29].