

HOCmodel Parameter	Description	For all	Soma	Dendrite	Pyramidal dendrite	Axon	Pyramidal axon	Unit
//passive and active membrane								
celsius	Temperature	37.0						° celsius
ra	Specific axial resistance	150						Ωcm
global_ra	Global axial resistivity	150						Ωcm
rm	Specific membrane resistance	30000						Ωcm^2
c_m	Specific membrane capacitance	0.75						$\mu\text{F}/\text{cm}^2$
Ek	Reversal potential potassium	- 90						mV
Ena	Reversal potential sodium	60						mV
gna_soma, gna_dend, gna_dend_pyr	Fast sodium conductivity		1500	13	19	-	-	$\text{pS}/\mu\text{m}^2$
gbar_na	Conductance density sodium		1500	13	19	1800	1800	$\text{pS}/\mu\text{m}^2$
gkv_soma, gkv_axon, gkv_axon_pyr	Fast potassium conductivity		2000	-	-	2000	3000	$\text{pS}/\mu\text{m}^2$
gbar_kv	Conductance density fast potassium		2000	-	-	2000	2000	$\text{pS}/\mu\text{m}^2$
gca, gca_soma	High voltage activated calcium conductivity	0.3	0.3	0.3	0.3	-	-	$\text{pS}/\mu\text{m}^2$
gbar_ca	Conductance density calcium		0.3	0.3	0.3	-	-	$\text{pS}/\mu\text{m}^2$
gkm, gkm_soma	Slow non-activating potassium conductivity	0.1	0.1	0.1	0.1	-	-	$\text{pS}/\mu\text{m}^2$
gbar_km	Conductance density slow non-activating potassium		0.1	0.1	0.1	-	-	$\text{pS}/\mu\text{m}^2$
gkca, gkca_soma, gbar_kca	Ca ²⁺ - dependent potassium conductivity	3	3	3	3	-	-	$\text{pS}/\mu\text{m}^2$
gbar_kca	Conductance density Ca ²⁺ -dependent potassium		3	3	3	-	-	$\text{pS}/\mu\text{m}^2$
//passive								
Ra	Axial resistivity	150						Ωcm
cm	Membrane capacitance	0.75						$\mu\text{F}/\text{cm}^2$
g_pas	Passive conductance	1/30000						S/cm^2
e_pas	Passive reversal potential	- 70						mV
ek	Reversal potential potassium	- 90						mV
ena	Reversal potential sodium	60						mV
eca	Reversal potential calcium	140						mV

