

Overview

Cells

Cell	Total Surface Area	Sections	Segments	Active Channels (id,[Name])
Cell1	1.25663706144e-09 m**2	1	5	HH_NA_CURRENT [NaChl] HH_K_CURRENT [KChl] HULL12_DIN_LK_ID [LkChl]

Current Clamps

Name	Location	Delay	Amplitude	Duration
Stim1	Cell1	0.1 s	2.5e-10 A	0.1 s

Cells Details

Cell1

Overview

Name	value
Total Area	1.25663706144e-09 m**2
Regions	NoRegionGiven
idTags	soma

MorphologyTree

Region	n_segments	Area
NoRegionGiven	1	1256.63706144

Mechanism	Targettor	Applicator
LkChl	MM-Everywhere	Uniform [eLk:-0.054 kg*m**2/(s**3*A), gLk:3.0 s**3*A**2/(kg*m**4), gScale:1.0 dimensionless]
NaChl	MM-Everywhere	Uniform [gBar:1200.0 s**3*A**2/(kg*m**4), e_rev:0.05 kg*m**2/(s**3*A), gScale:1.0 dimensionless]
KChl	MM-Everywhere	Uniform [gBar:360.0 s**3*A**2/(kg*m**4), e_rev:-0.077 kg*m**2/(s**3*A), gScale:1.0 dimensionless]

Sections

Section	Parent	Region	ID	Radius (Proximal)	Radius (Distal)	Length	Area	n_segments
0	[NA]	NoRegionGiven	soma	10.00	10.00	20.00	1256.63706144	5

Gap Junctions

Cell1	Cell2	Resistance	Distance Soma1	Distance Soma2	PrePostDist
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Synapses

Key-Traces

Membrane Definitions

LkChI

LkChI

Parameters

Parameter Name	Default
gLk	$3.0 \text{ s}^3\text{A}^2/(\text{kg}\cdot\text{m}^4)$
eLk	$-0.0543 \text{ kg}\cdot\text{m}^2/(\text{s}^3\text{A})$
gScale	1.0 dimensionless

Overview

Conductance	$3.0 \text{ s}^3\text{A}^2/(\text{kg}\cdot\text{m}^4)$
Reversal Potential	$-0.0543 \text{ kg}\cdot\text{m}^2/(\text{s}^3\text{A})$

NaChI

NaChI

Parameters

Parameter Name	Default
gBar	1200.0 s**3*A**2/(kg*m**4)
e_rev	0.05 kg*m**2/(s**3*A)
gScale	1.0 dimensionless

Overview

Max Conductance (gBar)	120.0 mS/cm2
Reversal Potential	50.0 mV
Conductance Equation	gBar * m*m*m*h

State: h

alpha(V) = (A+BV)/(C+exp((V+D)/E))
beta(V) = (A+BV)/(C+exp((V+D)/E))

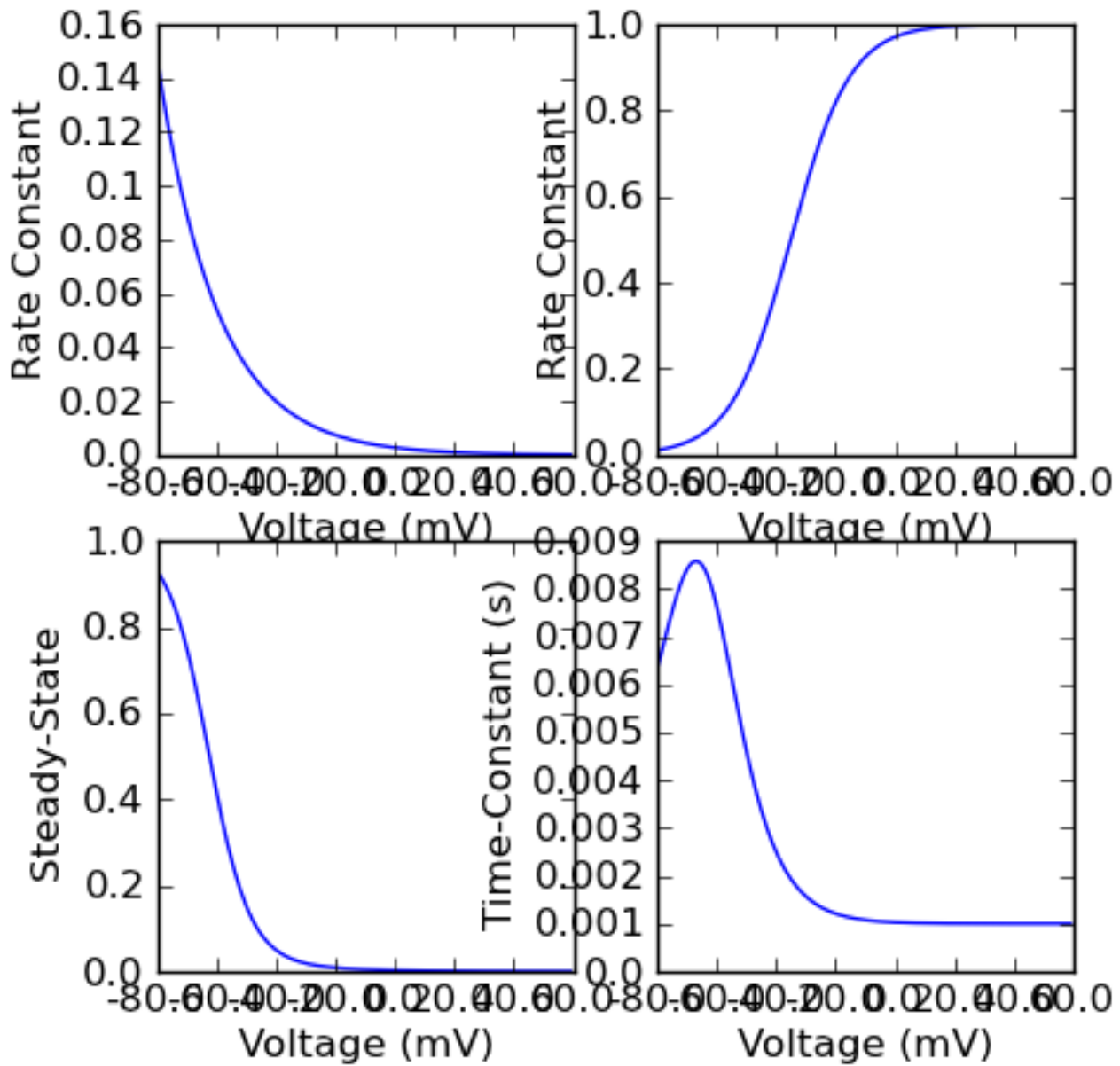
Alpha

A	B	C	D	E
0.07	0.00	0.00	65.00	20.00

Beta1

A	B	C	D	E
1.00	0.00	1.00	35.00	-10.00

AlphaBeta Channel - NaChl : h



State: *m*

$$\alpha(V) = (A + BV) / (C + \exp((V + D)/E))$$

$$\beta(V) = (A + BV) / (C + \exp((V + D)/E))$$

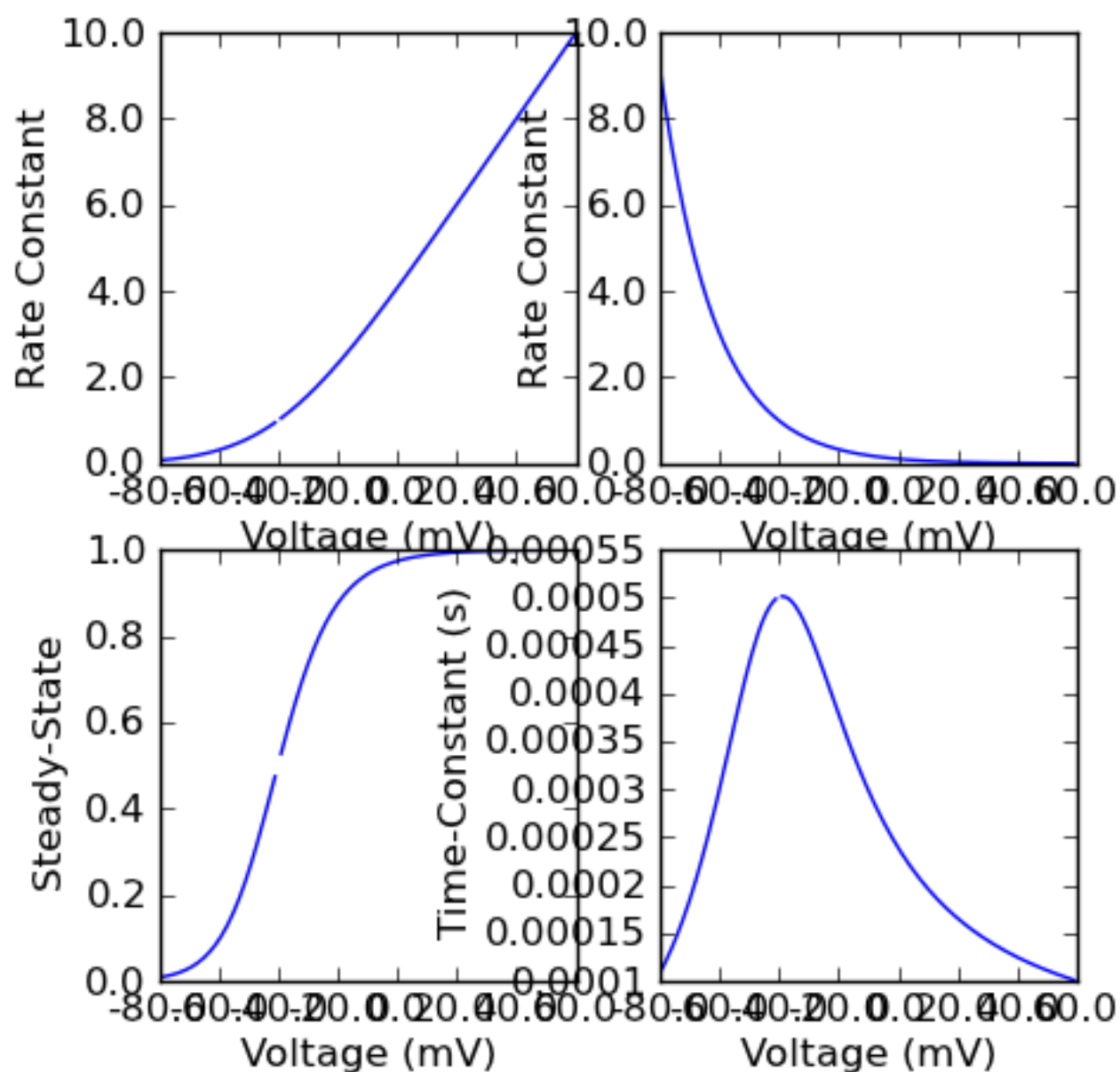
Alpha

A	B	C	D	E
-4.00	-0.10	-1.00	40.00	-10.00

Beta1

A	B	C	D	E
4.00	0.00	0.00	65.00	18.00

AlphaBeta Channel - NaChl : m



KChI

KChI

Parameters

Parameter Name	Default
gBar	360.0 s**3*A**2/(kg*m**4)
e_rev	-0.077 kg*m**2/(s**3*A)
gScale	1.0 dimensionless

Overview

Max Conductance (gBar)	36.0 mS/cm2
Reversal Potential	-77.0 mV
Conductance Equation	gBar * n*n*n*n

State: n

alpha(V) = (A+BV)/(C+exp((V+D)/E))
beta(V) = (A+BV)/(C+exp((V+D)/E))

Alpha

A	B	C	D	E
-0.55	-0.01	-1.00	55.00	-10.00

Beta1

A	B	C	D	E
0.12	0.00	0.00	65.00	80.00

AlphaBeta Channel - KChI : n

