

Overview

Cells

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

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))

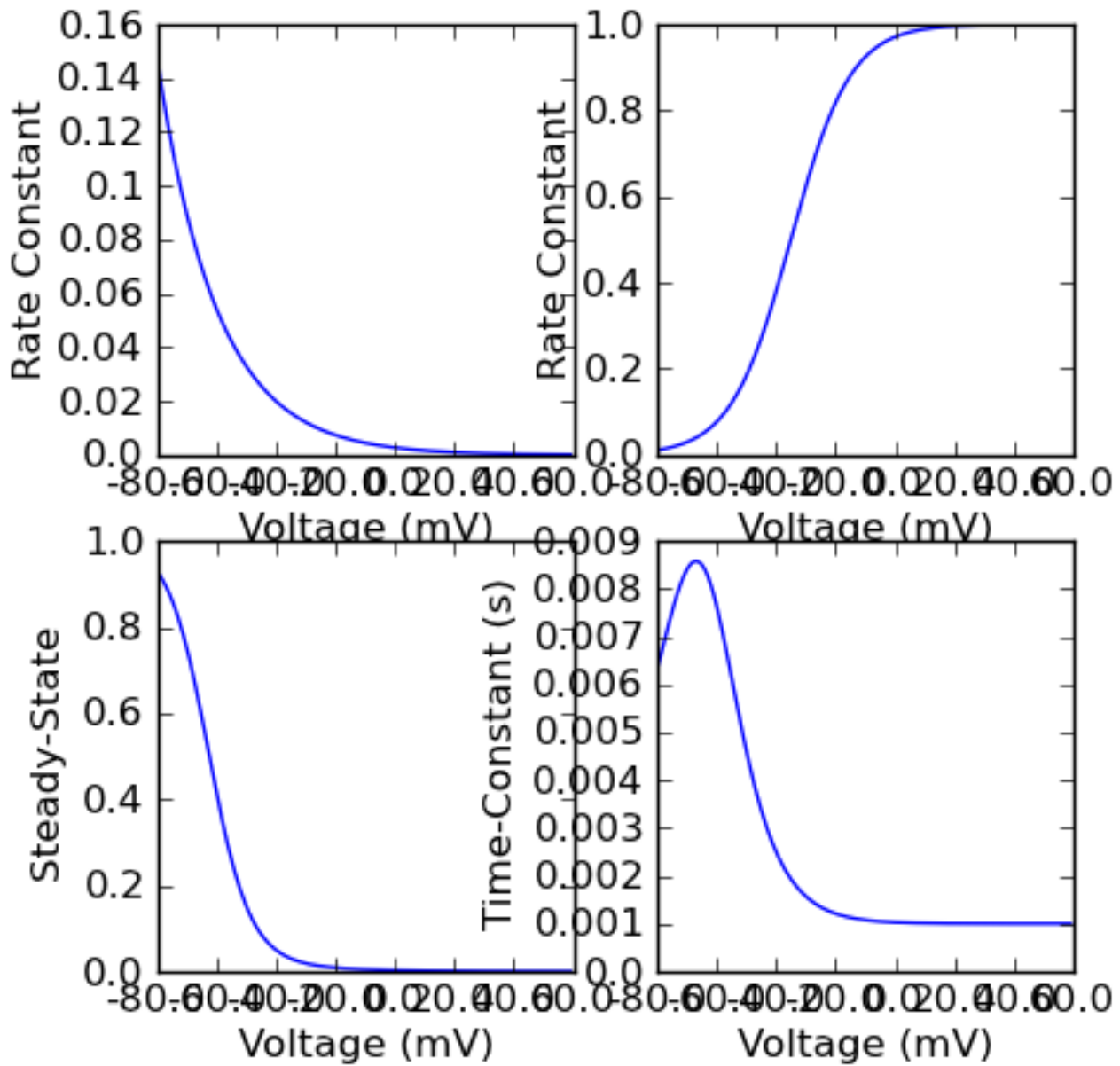
Alpha

| 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*

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

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

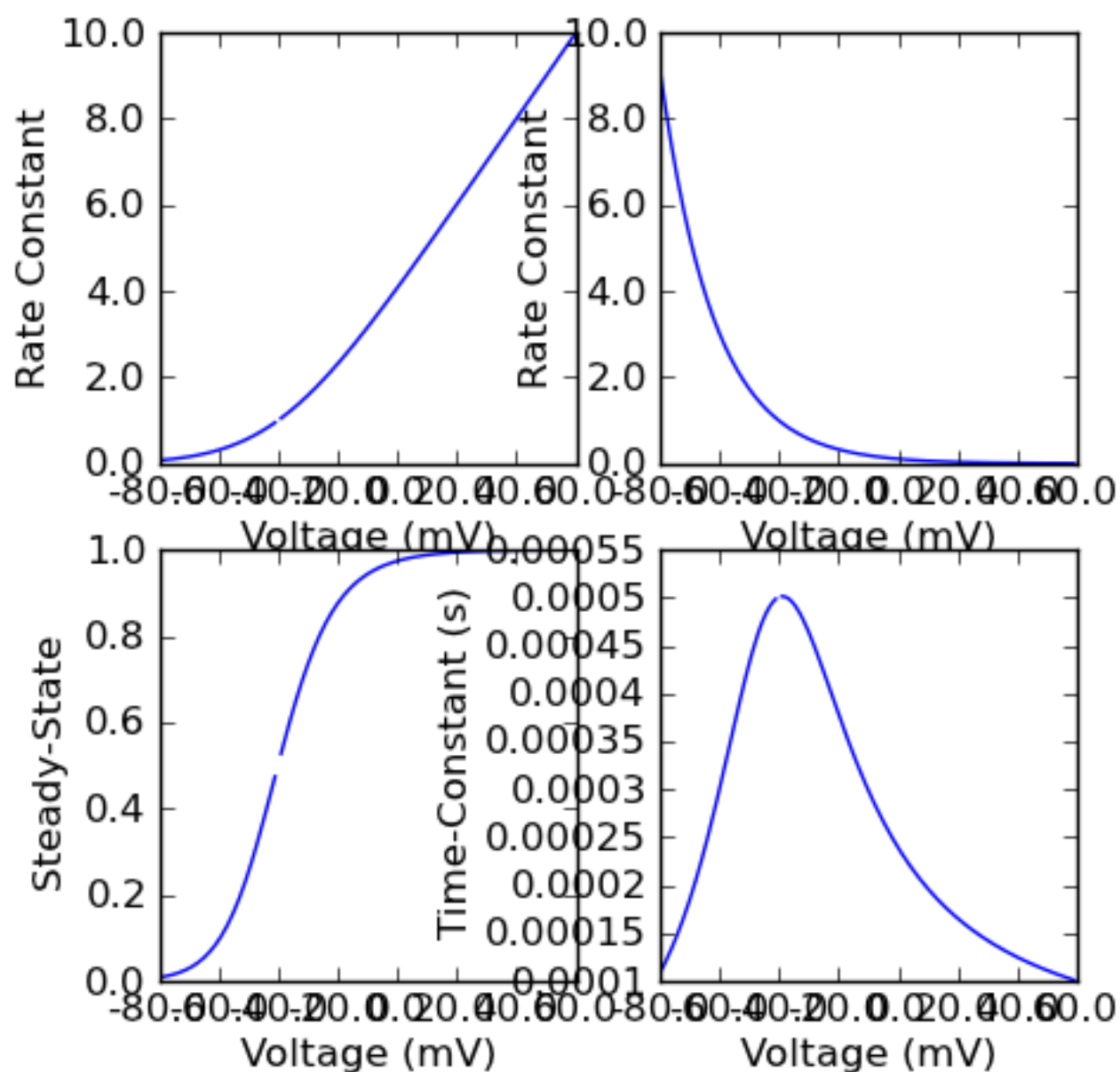
Alpha

| 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

