Protocol 1:

AP recording at room temperature

PGF-stimulus: AP, Sequence: 14
TIMING:
NumberSweeps: 1, Averages: 0, SweepInterval: 1.000 s, SampleInterval: 20.00µs
Wait before 1. sweep: FALSE
CHANNEL: 1, channel 1 time.
AD-Channel [V]: AD-5, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 3, Y: 3, Write: TRUE, Holding: 0.000 V
LEAK SUBTRACTION:
no leak pulses
DA-Channel [A]: DA-3, use StimScale
Amplifier mode: CurrentClamp, Set last Seg. Ampl.: FALSE
SEGMENTS: Voltage Duration VFact VIncr TFact TIncr
1: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
2: Constant, 500.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant, V-hold, 973.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment

AP recording at 37 °C

PGF-stimulus: AP, Sequence: 8
TIMING:
NumberSweeps: 1, Averages: 0, SweepInterval: 1.000 s, SampleInterval: 20.00µs
Wait before 1. sweep: FALSE
CHANNEL: 1, channel 1 time.
AD-Channel [V]: AD-5, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 3, Y: 3, Write: TRUE, Holding: 0.000 V
LEAK SUBTRACTION:
no leak pulses
DA-Channel [A]: DA-3, use StimScale
Amplifier mode: CurrentClamp, Set last Seg. Ampl.: FALSE
SEGMENTS: Voltage Duration VFact VIncr TFact TIncr
1: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
2: Constant, 700.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant, V-hold, 223.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
4: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
5: Constant, 700.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment

6: Constant, V-hold, 223.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
7: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
8: Constant, 700.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
9: Constant, V-hold, 223.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
10: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
11: Constant, 700.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
12: Constant, V-hold, 223.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
13: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
14: Constant, 700.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
15: Constant, V-hold, 223.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
16: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
17: Constant, 700.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
18: Constant, V-hold, 223.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
19: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
20: Constant, 700.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
21: Constant, V-hold, 223.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
22: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
23: Constant, 700.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
24: Constant, V-hold, 223.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
25: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
26: Constant, 700.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
27: Constant, V-hold, 223.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
28: Constant, V-hold, 23.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
29: Constant, 700.0mV, 1.00, 0.000 V, 4.000ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
30: Constant, V-hold, 223.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment

Protocol 2:

I_{toc} recording

PGF-stimulus: Ito, Sequence: 15
TIMING:
NumberSweeps: 10, Averages: 0, SweepInterval: 10.00 s, SampleInterval: 20.00µs
Wait before 1. sweep: FALSE
CHANNEL: 1, channel 1 time.
AD-Channel [A]: AD-6, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 3, Y: 3, Write: TRUE, Holding: -80.00mV
LEAK SUBTRACTION:
No of Leaks: 4, Size: 0.25, Holding: -105.0mV, Delay: 10.00ms
LeakAlternate: FALSE, AltLeakAverage: FALSE
DA-Channel [V]: DA-3, use StimScale
Amplifier mode: VoltageClamp, Set last Seg. Ampl.: FALSE
SEGMENTS: Voltage Duration VFact VIncr TFact TIncr
1: Constant, -120.0mV, 1.00, 0.000 V, 50.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
2: Constant, -40.00mV, 1.00, 0.000 V, 50.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant, -30.00mV, 1.00, 10.00mV, 500.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
4: Constant, -40.00mV, 1.00, 0.000 V, 50.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
5: Constant, -120.0mV, 1.00, 0.000 V, 10.00ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment

Protocol 3:

$I_{Ca,L}$ recording

PGF-stimulus: Ca current, Sequence: 3
TIMING:
NumberSweeps: 11, Averages: 0, SweepInterval: 10.00 s, SampleInterval: 50.00µs
Wait before 1. sweep: FALSE
CHANNEL: 1, channel 1 time.
AD-Channel [A]: AD-6, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 2, Y: 2, Write: TRUE, Holding: -80.00mV
LEAK SUBTRACTION:
No of Leaks: 4, Size: 0.25, Holding: -105.0mV, Delay: 10.00ms
LeakAlternate: FALSE, AltLeakAverage: FALSE
DA-Channel [V]: DA-3, use StimScale
Amplifier mode: VoltageClamp, Set last Seg. Ampl.: FALSE
SEGMENTS: Voltage Duration VFact VIncr TFact TIncr
1: Constant, -40.00mV, 1.00, 0.000 V, 150.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
2: Constant, -50.00mV, 1.00, 10.00mV, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant, -40.00mV, 1.00, 0.000 V, 150.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment

Protocol 4:

Simultaneous $I_{Ca,L}$ and Ca^{2+} transients recording-prepulse

PGF-stimulus: CICR1, Sequence: 12
TIMING:
NumberSweeps: 1, Averages: 0, SweepInterval: 0.000 s, SampleInterval: 2.000ms
Wait before 1. sweep: FALSE
CHANNEL: 1, channel 1 time.
AD-Channel [A]: AD-6, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 1, Y: 1, Write: TRUE, Holding: -80.00mV
LEAK SUBTRACTION:
no leak pulses
DA-Channel [V]: DA-3, use StimScale
Amplifier mode: VoltageClamp, Set last Seg. Ampl.: FALSE

SEGMENTS:	Voltage	Duration	VFact	VIncr	TFact	TIncr
1: Constant,	-40.00mV,	1.00,	0.000 V,	2.000 s,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
2: Constant,	0.000 V,	1.00,	0.000 V,	250.0ms,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant,	-40.00mV,	1.00,	0.000 V,	2.000 s,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
4: Constant,	0.000 V,	1.00,	0.000 V,	250.0ms,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
5: Constant,	-40.00mV,	1.00,	0.000 V,	2.000 s,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
6: Constant,	0.000 V,	1.00,	0.000 V,	250.0ms,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
7: Constant,	-40.00mV,	1.00,	0.000 V,	2.000 s,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
8: Constant,	0.000 V,	1.00,	0.000 V,	250.0ms,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
9: Constant,	-40.00mV,	1.00,	0.000 V,	2.000 s,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
10: Constant,	0.000 V,	1.00,	0.000 V,	250.0ms,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
11: Constant,	-40.00mV,	1.00,	0.000 V,	2.000 s,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
12: Constant,	0.000 V,	1.00,	0.000 V,	250.0ms,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
13: Constant,	-40.00mV,	1.00,	0.000 V,	2.000 s,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
14: Constant,	0.000 V,	1.00,	0.000 V,	250.0ms,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
15: Constant,	-40.00mV,	1.00,	0.000 V,	2.000 s,	1.00,	0.000 s, V-inc.mode: increment, t-inc.mode: log-increment

16: Constant, 0.000 V, 1.00, 0.000 V, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
17: Constant, -40.00mV, 1.00, 0.000 V, 2.000 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
18: Constant, 0.000 V, 1.00, 0.000 V, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
19: Constant, -40.00mV, 1.00, 0.000 V, 2.000 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
20: Constant, 0.000 V, 1.00, 0.000 V, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
21: Constant, -40.00mV, 1.00, 0.000 V, 2.000 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
22: Constant, 0.000 V, 1.00, 0.000 V, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
23: Constant, -40.00mV, 1.00, 0.000 V, 2.000 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
24: Constant, 0.000 V, 1.00, 0.000 V, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
25: Constant, -40.00mV, 1.00, 0.000 V, 2.000 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
26: Constant, 0.000 V, 1.00, 0.000 V, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
27: Constant, -40.00mV, 1.00, 0.000 V, 2.000 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
28: Constant, 0.000 V, 1.00, 0.000 V, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
29: Constant, -40.00mV, 1.00, 0.000 V, 2.000 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
30: Constant, 0.000 V, 1.00, 0.000 V, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
31: Constant, -40.00mV, 1.00, 0.000 V, 2.000 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment

Protocol 5:

Simultaneous $I_{Ca,L}$ and Ca^{2+} transients recording

PGF-stimulus: CICR2, Sequence: 5
TIMING:
NumberSweeps: 11, Averages: 0, SweepInterval: 10.00 s, SampleInterval: 2.000ms
Wait before 1. sweep: FALSE
CHANNEL: 1, channel 1 time.
AD-Channel [A]: AD-6, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 2, Y: 2, Write: TRUE, Holding: -80.00mV
LEAK SUBTRACTION:
No of Leaks: 4, Size: 0.25, Holding: -105.0mV, Delay: 10.00ms
LeakAlternate: FALSE, AltLeakAverage: FALSE
DA-Channel [V]: DA-3, use StimScale
Amplifier mode: VoltageClamp, Set last Seg. Ampl.: FALSE
  SEGMENTS: Voltage Duration VFact VIncr TFact TIncr
1: Constant, -40.00mV, 1.00, 0.000 V, 500.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
2: Constant, -50.00mV, 1.00, 10.00mV, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant, -40.00mV, 1.00, 0.000 V, 1.500 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
CHANNEL: 2, own segment time.
AD-Channel [V]: AD-1, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 2, Y: 2, Write: TRUE, Holding: 600.0 V
LEAK SUBTRACTION:
no leak pulses
DA-Channel [nm]: DA-2, Wavelength
Amplifier mode: any, Set last Seg. Ampl.: FALSE
  SEGMENTS: Voltage Duration VFact VIncr TFact TIncr
1: Constant, 355.0 V, 1.00, 0.000 V, 500.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
2: Constant, 355.0 V, 1.00, 0.000 V, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant, 355.0 V, 1.00, 0.000 V, 1.500 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
CHANNEL: 3, own segment time.
AD-Channel [V]: AD-2, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 1, Y: 1, Write: TRUE, Holding: 0.000 V
LEAK SUBTRACTION:
no leak pulses
DA-Channel [V]: off
Amplifier mode: VoltageClamp, Set last Seg. Ampl.: FALSE
  SEGMENTS: Voltage Duration VFact VIncr TFact TIncr
1: Constant, 0.000 V, 1.00, 0.000 V, 100.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment

2: Constant, 0.000 V, 1.00, 10.00mV, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant, 0.000 V, 1.00, 0.000 V, 100.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
PGF-stimulus: CICR2, Sequence: 5
TIMING:
NumberSweeps: 11, Averages: 0, SweepInterval: 10.00 s, SampleInterval: 2.000ms
Wait before 1. sweep: FALSE
CHANNEL: 1, channel 1 time.
AD-Channel [A]: AD-6, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 2, Y: 2, Write: TRUE, Holding: -80.00mV
LEAK SUBTRACTION:
No of Leaks: 4, Size: 0.25, Holding: -105.0mV, Delay: 10.00ms
LeakAlternate: FALSE, AltLeakAverage: FALSE
DA-Channel [V]: DA-3, use StimScale
Amplifier mode: VoltageClamp, Set last Seg. Ampl.: FALSE
SEGMENTS: Voltage Duration VFact VIncr TFact TIncr
1: Constant, -40.00mV, 1.00, 0.000 V, 500.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
2: Constant, -50.00mV, 1.00, 10.00mV, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant, -40.00mV, 1.00, 0.000 V, 1.500 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
CHANNEL: 2, own segment time.
AD-Channel [V]: AD-1, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 2, Y: 2, Write: TRUE, Holding: 600.0 V
LEAK SUBTRACTION:
no leak pulses
DA-Channel [nm]: DA-2, Wavelength
Amplifier mode: any, Set last Seg. Ampl.: FALSE
SEGMENTS: Voltage Duration VFact VIncr TFact TIncr
1: Constant, 355.0 V, 1.00, 0.000 V, 500.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
2: Constant, 355.0 V, 1.00, 0.000 V, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant, 355.0 V, 1.00, 0.000 V, 1.500 s, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
CHANNEL: 3, own segment time.
AD-Channel [V]: AD-2, Comp.Factor: 1, Comp.Mode: 00000000
Link Channel: 1, Rel.Segments - X: 1, Y: 1, Write: TRUE, Holding: 0.000 V
LEAK SUBTRACTION:
no leak pulses
DA-Channel [V]: off
Amplifier mode: VoltageClamp, Set last Seg. Ampl.: FALSE
SEGMENTS: Voltage Duration VFact VIncr TFact TIncr
1: Constant, 0.000 V, 1.00, 0.000 V, 100.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment

2: Constant, 0.000 V, 1.00, 10.00mV, 250.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment
3: Constant, 0.000 V, 1.00, 0.000 V, 100.0ms, 1.00, 0.000 s, V-inc.mode: increment, t-inc.mode: log-increment

Protocol 6:

Protocol editor for $G\alpha_q$ KO and hyperaldosteronism projects

SetOsci (0.000s): Wipe, Timer, Tr(N)= 1111111111111111

Amplifier (0.000s): Tune, C-slow, Vh= -80.000mV, WholeCell

REPEAT (0.000s): 2 x 0.000s

  Command (0.000s): "E AutoCSlow"

  Chain (0.000s): "Gain"

  Chain (0.000s): "RS Comp"

  Wait (0.000s): abs 5.000s

  Amplifier (0.000s): Tune, Ih= 0.0000A, CClamp

  Online (0.000s): "VRest"

  Series (0.000s): "VRest", "", ""

  Wait (0.000s): abs 1.000s

  SetOsci (0.000s): WipeOnline, Tr(N)= 1111111111111111

  SetPgf (0.000s): PgfParam-1 = 0.0000

  REPEAT (0.000s): inf 1.000s

    Online (0.000s): "AP Test"

    Series (0.000s): "AP Test", "", ""

    IF (0.000s): Online-2 > 5.0000m

      BREAK (0.000s): repeat

    END_IF

    IF (0.000s): RepeatCount > 15.000

      GOTO (0.000s): "Go out"

    END_IF

```
    SetPgf          ( 0.000s): PgfParam-1 INC  100.00m
  END_REPEAT
  SetPgf          ( 0.000s): PgfParam-1 INC  100.00m
  Online          ( 0.000s): "AP"
  Series          ( 0.000s): avg=3,"AP", "", ""
  Wait            ( 0.000s): abs  1.000s
END_REPEAT
GOTO_MARK       ( 0.000s): "Go Out"
Amplifier       ( 0.000s): Tune, C-slow, Vh= -80.000mV, WholeCell
Command         ( 0.000s): "E AutoCSlow"
Chain           ( 0.000s): "Gain"
Chain           ( 0.000s): "RS Comp"
Online          ( 0.000s): "Itoc"
Series          ( 0.000s): "Itoc", "", ""
Wait            ( 0.000s): abs  1.000s
Beep            ( 0.000s)
Wait            ( 0.000s): Alert= "End of the protocol"
```

Protocol 7:

Protocol editor for I/E mutation and RacET projects

SetOsci (0.000s): WipeOsci, Timer, Tr(N)= 1111111111111111

Amplifier (0.000s): Vh= -80.000mV, WholeCell

Command (0.000s): "E AutoCSlow"

Chain (0.000s): "RS Comp"

Chain (0.000s): "Gain"

Series (0.000s): "CICR", "", ""

Wait (0.000s): abs 1.000s

Amplifier (0.000s): C-slow, Vh= -80.000mV, WholeCell

Wait (0.000s): abs 5.000s

Beep (0.000s)