Appendix: Stimulus Details

Stimulus	Details	Inter-trial Interval, s (start to start)
Ramp	A ramp current injection with a slope of 25 pA/s is delivered, then terminated after the neuron fires a short series of action potentials.	> 10 s
Long Square	1 s square current injections from -110 pA (or -190 pA for some Pvalb neurons) to rheobase + 160 pA, in 20 pA increments. For a subset of cells, rheobase is further probed to within 10 pA. For some human neurons with low input resistance, steps were from -220 pA in 40 pA increments.	10 s (subthreshold) / 17 s (suprathreshold)
Short Square (Standard & Hold -60, -70, -80 mV)	3 ms square pulse injections from 100 pA to action potential generation, then 10 pA increments to further probe action potential threshold.	4 s (subthreshold) / 5 s (suprathreshold)
Short Square Triple	3 x 3 ms square current injections at threshold amplitude. Interpulse intervals (start to start) are 7, 11, 15, 19, 23, 27, 31, and 35 ms.	5 s
Noise 1 & Noise 2	Pink noise with a coefficient of variation (CV) equal to 0.2 is used to as it resembles *in vivo* data. These stimuli consist of 3 x 3 s noise epochs riding on top of square pulses at 0.75, 1, and 1.5 times rheobase. Recovery intervals between stimuli are 5 s.	47 s
Noise: Ramp to Rheobase	1 s pink noise epochs created using two different random seeds riding on top of a ramp transitioning to a plateau. The ramp portion of the stimulus is 14 seconds long. The noise on the ramp consists of alternating seeds all with a CV of .01. The noise on the plateau are organized into periods of six seconds containing noise of three different CV's with increasing and decreasing CV at 0.2, 0.4, 0.6, 0.4, and 0.2. After a period is completed using one random seed, the other random seed is played for a total of three periods.	48 s
Square Suprathreshold	2 s square current injections to rheobase + 40 pA and 80 pA. Each amplitude is repeated 3-4 times.	18 s
Square Subthreshold	0.5 ms square current injections to +/- 200 pA, repeated 20 times (200 ms intervals).	N/A (single sweep)