

Summary Data and Statistical Tests:

Table 1. Related to Fig 1B,3. Statistical test: Unpaired t-test.

Data	T1	T2	T1 vs T2(p)
Amplitude (pA):	12.31± 0.28	13.92± 0.52	0.013
Frequency (events/s):	1.103± 0.39	3.845± 0.86	0.008
Decay time (ms):	7.32± 0.31	6.42± 0.23	0.039
Rise time (ms):	1.66± 0.08	1.47± 0.05	0.065
Input Resistance (MΩ):	150.4± 11.08	141.2± 12.24	0.582
Capacitance (pF):	138.5± 14.11	133.3± 9.23	0.766
Series Resistance (MΩ):	14.83± 1.40	11.81± 0.77	0.091
Holding current (pA):	-25.28± 8.51	-13.66± 10.67	0.403
Membrane noise (pA):	2.858± 0.11	3.073± 0.12	0.196

Table 2. Related to Fig 2A-C. Statistical test: Percentile Bootstrap with Bonferroni correction.

Data	Fast	Fast ≠ 0 (p)	Slow	Slow ≠ 0 (p)	Fast vs Slow (p)
Amplitude Δ%:	21.16±3.50	<0.0006	17.81 ± 1.53	<0.0006	>0.9999
Rise time Δ%:	-26.42 ± 1.99	<0.0006	-7.30 ± 0.74	<0.0006	<0.0006
Frequency Δ%:	832.60 ± 67.20	<0.0006	230.98 ± 10.03	<0.0006	<0.0006

Table 3. Related to Fig 3C, D. Statistical test: Two-way ANOVA with Bonferroni correction.

Data	SCR			CN21		
	T1	T2	T1 vs T2 (p)	T1	T2	T1 vs T2 (p)
Amplitude (pA):	14.05 ± 0.44	16.57 ± 0.87	0.0175	13.86±0.79	14.45±0.52	>0.9999
Frequency (events/s):	1.43 ± 0.24	5.011 ± 0.68	<0.0001	1.67 ± 0.55	4.48 ± 0.55	0.0009

Table 3. Related to Fig 3F, L. Statistical test: Percentile Bootstrap with Bonferroni correction.

Data		SCR	SCR ≠ 0 (p)	CN21	CN21≠ 0 (p)	SCR vs CN21 (p)
Amplitude Δ%:	Fast	29.26 ± 2.42	<0.0012	0.82 ± 1.90	1	<0.0012
	Slow	13.20 ± 1.37	<0.0012	6.73 ± 1.62	<0.0012	0.014
Rise time Δ%:	Fast	-7.51 ± 1.42	<0.0012	1.84 ± 1.48	1	<0.0012
	Slow	-3.59 ± 0.55	<0.0012	-0.15 ± 0.7	1	<0.0012
Frequency Δ%:	Fast	521.86 ± 21.00	<0.0012	132.41± 6.54	<0.0012	<0.0012
	Slow	330.87 ± 9.26	<0.0012	265.49 ± 10.33	<0.0012	<0.0012