Supplementary Table. Statistical analysis of different spike subpopulations

Comparison of amperometric events (i) the falling phase of which was better fit with single- or double-exponential functions, and (ii) the t_{rise} of which was higher or lower than the cutoff. The falling phase of each spike between 75% of I_{max} and T_{bkg2} was fit with single- and double-exponential functions and the latter was employed if χ^2(single) / χ^2(double) was more than two. Of 1011 spikes, 458 (45%) were better fit with double exponentials. The cutoff for t_{rise} was set to 1.5 ms - more than 3*SD higher than the population's mean. Of 1011 spikes, 156 (15 %) had t_{rise} longer than the cutoff. Only non-overlapping spikes with I_{max} > 3 pA and only PSF with I_{foot} > 2*SD$_I$ were analyzed. The median of each parameter value was calculated from 24 cells; data are presented as mean ± SD of parameter values between the cells.

	I_{max} [pA]	$t_{1/2}$ [ms]	Q [§] [molecules]	t_{rise} [§§] [ms]	Rise slope [pA/ms]	Fall, τ_1 [ms]	Fall, τ_2 [ms]	spikes with PSF	with steady-state PSF [#]
All spikes	25.7 ± 14.4	4.7 ± 1.8	560,000± 230,000	0.74± 0.21	19.1 ± 12.1	4.1 ± 2.6	10.4 ± 4.2	82 %	45 %
Single exp	9.2 ± 2.4	6.7 ± 2.0	290,000 ± 80,000	0.99 ± 0.31	4.9 ± 1.7	7.4 ± 2.5	-	69 %	30 %
Double exp	67.7 ± 27.5*	3.2 ± 1.0*	1,190,000 ± 520,000*	0.58 ± 0.14*	62.0 ± 33.2*	1.9 ± 0.6*	10.4 ± 4.2**	96 %	57 %
t_{rise} > 1.5 ms	7.3 ± 2.9	11.2 ± 2.8	400,000 ± 240,000	2.32 ± 0.41	1.8 ± 0.9	11.1 ± 3.9[&]	24.8 ± 14.4	58 %	32 %
t_{rise} < 1.5 ms	31.3 ± 15.8*	4.1 ± 1.4*	650,000 ± 330,000*	0.65 ± 0.12*	25.8 ± 14.9*	3.5 ± 2.1*	10.1 ± 4.0*	87 %	45 %

[§] - The number of released catecholamine molecules was calculated from amperometric charge as described in Fig. 3 legend

[§§] - Duration between 25% and 75% of I_{max} excluding the foot

[#] - Fraction of spikes that displayed PSF with steady-states longer than 2 ms

[&] - Includes both single- and double-exp τ_1

* - Significantly different from single-exp or t_{rise} > 1.5 ms with p < 0.05 by Mann-Whitney rank sum test

** - Significantly different from τ_1 of both single- and double-exp with p < 0.05 by Mann-Whitney rank sum test