## **Supporting Information**

## Electrochemical Quantification of Transmitter Concentration in Single Nanoscale Vesicles Isolated from PC12 Cells

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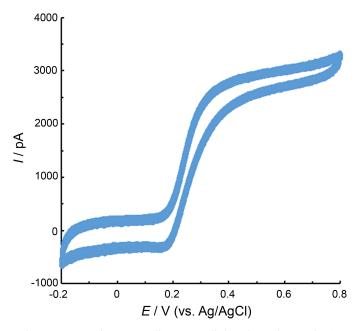
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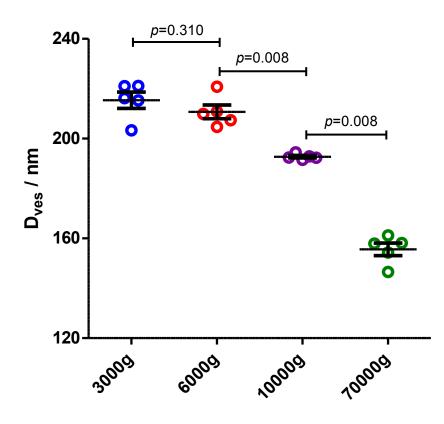
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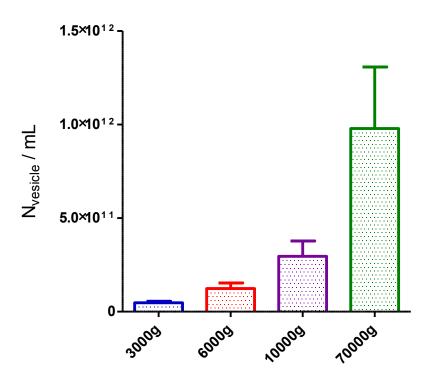
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**Fig. S1.** Typical cyclic voltammetry of 33 μm diameter disk microelectrode (-0.2 to 0.8 V vs. Ag/AgCl, 100 mV/s) in 100 μM dopamine in PBS (pH 7.4).



**Fig. S2.** Average diameters of individual vesicles obtained with differential centrifugation quantified with nanoparticle tracking analysis (NTA). The data are presented as mean  $\pm$  standard error of the mean (SEM). Blue, 3000 g; red, 6000 g; purple, 10000 g; green, 70000 g. N = 6 isolations. The pairs of data sets were compared using a two-tailed Wilcoxon–Mann–Whitney rank-sum test, and *p*-values are indicated in the figure.



**Fig. S3.** Average number of vesicles per milliliter detected in NTA for vesicle samples obtained with differential centrifugation. Error bar, SEM. N = 6 isolations. Blue, 3000 g; red, 6000 g; purple, 10000 g; green, 70000 g.