

Supp. Table S1. Quantification of the rate and extent of SV exocytosis and endocytosis.

a

constructs	CONTROL					
	syp-pH exocytosis rate (DF/F ₀) / s (au)		syp-pH RP (% of total pool)		syp-pH post-stim endocytotic t _{decay} (s)	
	mean ± SEM	P to WT	mean ± SEM	P to WT	mean ± SEM	P to WT
WT VAMP2	0.0164 ± 0.00105		38.10 ± 1.84%		39.77 ± 2.96	
R56L	0.0126 ± 0.00086	< 0.05*	27.23 ± 1.37%	< 0.05*	46.09 ± 4.92	> 0.05
G73W	0.0129 ± 0.00010	< 0.05*	27.58 ± 1.81%	< 0.05*	37.34 ± 3.94	> 0.05
R56X	0.0170 ± 0.00077	> 0.05	37.28 ± 1.23%	> 0.05	36.14 ± 3.36	> 0.05

b

constructs	3,4 DAP							
	syp-pH exocytosis rate (DF/F ₀) / s (au)			syp-pH RP (% of total pool)			syp-pH post-stim endocytotic t _{decay} (s)	
	mean ± SEM	P to WT	P to ctrl	mean ± SEM	P to WT	P to ctrl	mean ± SEM	P
WT VAMP2	0.0220 ± 0.00129		< 0.05*	43.02 ± 1.00%		< 0.05*	38.49 ± 4.09	> 0.05
R56L	0.0216 ± 0.00118	> 0.05	< 0.05*	41.20 ± 2.15%	> 0.05	< 0.05*	51.27 ± 5.03	> 0.05
G73W	0.0231 ± 0.00170	> 0.05	< 0.05*	43.27 ± 1.28%	> 0.05	< 0.05*	46.16 ± 4.34	> 0.05
R56X	0.0230 ± 0.00086	> 0.05	< 0.05*	40.65 ± 1.40%	> 0.05	> 0.05	35.99 ± 3.50	> 0.05

Tables provide detailed quantification data for the exocytosis rate, recycling pool size (RP) and endocytosis rate of syp-pH, under conditions described in Figure 2 in the presence of (a) vehicle or (b) 3,4-DAP.