Supplementary Table 1: Statistical Analysis

Figure	Pre hoc	Post hoc	**N / n** (number of animals / samples)
1 A	Unpaired two-tailed Student's t test: 1) rise time: t=2.325, p=0.0223 2) decay time: t=3.351, p=0.0012 3) half width: t= 2.748, p=0.0072 Df: 93		N: HC 6; SPMS 7 n (number of cells): HC 55; SPMS 40
1 B	Unpaired two-tailed Student's t test: 1) rise time: t=2.643, p=0.0229 2) decay time: t=2.594, p=0.0249 3) half width: t= 2.523, p=0.0283 Df: 11		N: HC 6; SPMS 7 n (number of cells): HC 55; SPMS 40
2 A	Unpaired two-tailed Student's t test: 1) rise time: t=1.208, p=0.2303 2) decay time: t=4.088, p<0.0001 3) half width: t= 2.238, p=0.0277 Df: 89		N: SPMS 7; SPMS-SIP 7 n (number of cells): SPMS 40; SPMS-SIP 51
2 B	Unpaired two-tailed Student's t test: 1) rise time: t=2.213, p=0.0470 2) decay time: t=4.584, p=0.0006 3) half width: t= 2.993, p=0.0112 Df: 12		N: SPMS 7; SPMS-SIP 7 n (number of cells): SPMS 40; SPMS-SIP 51
3 A	One-way ANOVA: 1) rise time: F(2,29)=4.163, p=0.0257 2) decay time: F(2,29)=5.896, p=0.0071 3) half width: F(2,29)=7.158, p=0.0030	Tukey multiple comparisons test	N: EAE-VHL 4; EAE-SIP 0.4 μM 4; EAE-SIP 1 μM 4 n (number of cells): EAE-VHL 9; EAE-SIP 0.4 μM 15; EAE-SIP 1 μM 8
3B	Unpaired two-tailed Student's t test: 1) rise time: t=1.929, p=0.0689 2) decay time: t=0.3352, p=0.7412 3) half width: t=0.6705, p=0.5106 Df: 19		N: EAE-SIP 1 μM 4; EAE-SIP 1 μM+NIBR0213 4 n (number of cells): EAE-SIP 1 μM 8; EAE-SIP 1 μM+NIBR0213 13
3B'	Unpaired two-tailed Student's t test: 1) rise time: t=0.4015, p=0.6923 2) decay time: t=1.135, p=0.2700 3) half width: t=0.9697, p=0.3438 Df: 20		N: EAE-VHL 4; EAE-AUY957 4 n (number of cells): EAE-VHL 9; EAE-AUY957 13
3B''	Unpaired two-tailed Student's t test: 1) rise time: t=1.064, p=0.3007 2) decay time: t=4.390, p=0.0003 3) half width: t=4.032, p=0.0007 Df: 19		N: EAE-VHL 4; EAE-A971432 4 n (number of cells): EAE-VHL 9; EAE-A971432 12