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▶ Statistics reporting, by figure

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Note: Mean and standard deviation are not appropriate on small samples, and plotting independent data points is usually more informative. When technical replicates are reported, error and significance measures reflect the experimental variability and not the variability of the biological process; it is misleading not to state this clearly.

	TEST USED		n			DESCRIPTIVE STATS (AVERAGE, VARIANCE)		P VALUE		DEGREES OF FREEDOM & F/t/z/R/ETC VALUE	
FIGURE NUMBER	WHICH TEST?	SECTION & PARAGRAPH #	EXACT VALUE	DEFINED?	SECTION & PARAGRAPH #	REPORTED?	SECTION & PARAGRAPH #	EXACT VALUE	SECTION & PARAGRAPH #	VALUE	SECTION & PARAGRAPH #
example 1a	one-way ANOVA	Fig. legend	9, 9, 10, 15	mice from at least 3 litters/group	Methods para 8	error bars are mean +/- SEM	Fig. legend	p = 0.044	Fig. legend	F(3, 36) = 2.97	Fig. legend
example results, para 6	unpaired t-test	Results para 6	15	slices from 10 mice	Results para 6	error bars are mean +/- SEM	Results para 6	p = 0.0006	Results para 6	t(28) = 2.808	Results para 6
+/- 1c	Mann-Whitney test	Fig. 1 Legend	6,7	VTA samples from 6 scrShank3 and 7 shShank3 mice	Fig. 1c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 1c Graph	p = 0.008	Fig. 1c Graph	U = 3	Fig. 1 Legend

	FIGURE NUMBER	WHICH TEST?	SECTION & PARAGRAPH #	EXACT VALUE	DEFINED?	SECTION & PARAGRAPH #	REPORTED?	SECTION & PARAGRAPH #	EXACT VALUE	SECTION & PARAGRAPH #	VALUE	SECTION & PARAGRAPH #
		TEST USED			n		DESCRIPTIVE STATS (AVERAGE, VARIANCE)		P VALUE		DEGREES OF FREEDOM & F/t/z/R/ETC VALUE	
+ -	Fig. 1c	Mann-Whitney test	Fig. 1 Legend	4,5	SN samples from 4 scrShank3 and 5 shShank3 mice	Fig. 1c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 1c Graph	p > 0.999	Fig. 1c graph	U = 10	Fig. 1 Legend
+ -	Fig. 2a	Kruskal-Wallis	Fig.2 Legend	9, 10, 4	9 Uninfected cells from 7 mice, 10 shShank3 infected cells from 9 mice, 4 scrShank3 cells from 3 mice	Fig. 2a Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2a Graph	p = 0.005	Fig. 2a Legend	K (2) = 10.47	Fig. 1 Legend
+ -	Fig. 2a	Dunn's test	Fig. 2 Legend	9, 10	9 Uninfected cells from 7 mice, 10 shShank3 infected cells from 9 mice	Fig. 2a Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2a Graph	p = 0.013	Fig. 2a Graph		
+ -	Fig. 2a	Dunn's test	Fig. 2 Legend	10, 4	10 shShank3 infected cells from 9 mice, 4 scrShank3 cells from 3 mice	Fig. 2a Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2a Graph	p = 0.043	Fig. 2a Graph		
+ -	Fig. 2b	unpaired t-test	Fig. 2 Legend	9,11	9 Uninfected cells from 6 mice, 11 shShank3 cells from 6 mice	Fig. 2b Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2b Graph	p = 0.960	Fig. 2a Graph	t (18) = 0.05	Fig. 2 Legend
+ -	Fig. 2c	One-Way ANOVA	Fig. 2 Legend	12,12,6	12 Uninfected from 8 mice, 12 shShank3 from 10 mice, 6 scrShank3 from 3 mice	Fig.2c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2c Graph	p < 0.001	Fig. 2c Legend	F (2, 27) = 11.66	Fig. 2 Legend
+ -	Fig. 2c	Tukey HSD	Fig. 2 Legend	12, 12	12 Uninfected from 8 mice, 12 shShank3 from 10 mice	Fig. 2c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2c Graph	p < 0.001	Fig. 2c Graph		
+ -	Fig. 2c	Tukey HSD	Fig. 2 Legend	12, 6	12 shShank3 from 10 mice, 6 scrShank3 from 3 mice	Fig. 2c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2c Graph	p = 0.003	Fig. 2c Graph		
+ -	Fig. 2e	unpaired t-test	Fig. 2 legend	6, 6	6 Uninfected from 4 mice, 4 shShank3 from 4 mice	Fig. 2e Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2e Graph	p = 0.837	Fig. 2e Graph	t (10) = -0.21	Fig. 2 Legend
+ -	Fig. 2f	unpaired t-test	Fig. 2 legend	14, 16	14 Uninfected from 10 mice, 16 shShank3 from 8 mice	Fig. 2f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2e Graph	p = 0.872	Fig. 2f Graph	t (28) = -0.16	Fig. 2 Legend
+ -	Fig. 2g	Mann-Whitney test	Fig. 2 Legend	9, 6	9 Uninfected cells from 6 mice, 6 shShank3 from 5 mice	Fig. 2g Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2g Graph	p = 0.316	Fig. 2g Graph	U = 18.50	Fig. 2 Legend
+ -	Fig. 2h	unpaired t-test	Fig. 2 Legend	7, 7	7 Uninfected from 6 mice, 7 shShank3 from 5 mice	Fig.2h Graph	errors bars are mean +/- SEM and scatter plot	Fig. 2h Graph	p = 0.712	Fig. 2h Graph	t (12) = 0.38	Fig. 2 Legend
+ -	Fig. 3a	unpaired t-test	Fig. 3 Legend	9, 7	9 Uninfected from 8 mice, 7 shShank3 from 6 mice	Fig. 3a Graph	errors bars are mean +/- SEM and scatter plot	Fig. 3a Graph	p = 0.008	Fig. 3a Graph	t (14) = -3.11	Fig. 3 Legend
+ -	Fig. 3b	unpaired t-test	Fig. 3 Legend	12, 15	12 Uninfected cells from 6 mice, 15 shShank3 from 4 mice	Fig. 3b Graph	errors bars are mean +/- SEM and scatter plot	Fig. 3b Graph	p = 0.455	Fig. 3b Graph	t (25) = -0.76	Fig. 3 Legend

+ -	Fig. 3c	unpaired t-test	Fig. 3 Legend	7, 5	7 Uninfected cells from 5 mice, 5 shShank3 from 3 mice	Fig. 3c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 3c Graph	p = 0.993	Fig. 3c Graph	t (10) = 0.01	Fig. 3 Legend
+ -	Fig. 4b	paired t-test	Fig. 4 Legend	6	6 shShank3 from 5 mice	Fig. 4b Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4b Graph	p = 0.016	Fig. 4b Graph	t (5) = 3.60	Fig. 4 Legend
+ -	Fig. 4b	paired t-test	Fig. 4 Legend	5	5 Uninfected cells from 3 mice	Fig. 4b Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4b Graph	p = 0.230	Fig. 4b Graph	t (4) = 1.42	Fig. 4 Legend
+ -	Fig. 4c	Two-Way ANOVA	Fig. 4 Legend	5, 8, 5,8	5 scrShank3 vehicle from 4 mice, 8 shShank3 vehicle cells from 3 mice, 5 scrShank3 Ro from 5 mice, 8 shShank3 Ro from 5 mice	Fig. 4c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4c Graph	virus x drug interaction p =0.019 virus main effect p < 0.001 drug main effect p = 0.015	Fig. 4c Legend	virus x drug interaction F (1,22) =6.41 virus main effect F (1,22) = 20.54 drug main effect F (1,22) = 7.02	Fig. 4 Legend
+ -	Fig. 4c	Tukey HSD	Fig. 4 Legend	5,8	5 scrShank3 vehicle from 4 mice, 8 shShank3 vehicle cells from 3 mice	Fig. 4c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4c Graph	p < 0.001	Fig. 4c Graph		
+ -	Fig. 4c	Tukey HSD	Fig. 4 Legend	8,8	8 shShank3 vehicle cells from 3 mice, 8 shShank3 Ro from 5 mice	Fig. 4c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4c Graph	p = 0.002	Fig. 4c Graph		
+ -	Fig 4c	Tukey HSD	Fig. 4 Legend	5, 8	5 scrShank3 vehicle from 4 mice, 8 shShank3 Ro from 5 mice	Fig. 4c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4c Graph	p = 0.554	Fig. 4c Graph		
+ -	Fig. 4d	Two-Way ANOVA	Fig. 4 Legend	9,9,6,10	9 scrShank3 vehicle cells from 5 mice, 9 shShank3 vehicle cells from 3 mice, 6 scrShank3 Ro cells from 4 mice, 10 shShank3 Ro cells from 7 mice	Fig. 4d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4d Graph	virus x drug interaction p =0.040 virus main effect p = 0.001 drug main effect p = 0.029	Fig. 4d Legend	virus x drug interaction F (1,30) =4.62 virus main effect F (1,30) = 14.93 drug main effect F (1,30) = 5.26	Fig. 4d Legend
+ -	Fig. 4d	Tukey HSD	Fig. 4 Legend	9,9	9 scrShank3 vehicle cells from 5 mice, 9 shShank3 vehicle cells from 3 mice	Fig. 4d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4d Graph	p = 0.001	Fig. 4d Graph		
+ -	Fig. 4d	Tukey HSD	Fig. 4 Legend	9, 10	9 shShank3 vehicle cells from 3 mice, 10 shShank3 Ro cells from 7 mice	Fig. 4d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4d Graph	p = 0.010	Fig. 4d Graph		
+ -	Fig. 4d	Tukey HSD	Fig. 4 Legend	9, 10	9 scrShank3 vehicle cells from 5 mice, 10 shShank3 Ro cells from 7 mice	Fig. 4d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4d Graph	p = 0.635	Fig. 4 Graph		
+ -	Fig. 5d	Kruskal-Wallis Test	Fig. 5 Legend, left	15, 15, 24, 21	15 scrShank3 vehicle cells from 4 mice, 15 shShank3 vehicle cells from 9 mice, 24 scrShank3 Ro cells from 6 mice, 21 shShank3 Ro cells from 4 mice	Fig. 5d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 5d Graph	p = 0.003	Fig.5 Legend	K (3) = 14.09	Fig. 5d Legend

+/-	Figure	Test	Location	n	Sample	Location	Error bars	Location	p value	Location	Statistic	Location
+ -	Fig. 5d	Dunn's test	Fig. 5 Legend	15,15	15 scrShank3 vehicle cells from 4 mice, 15 shShank3 vehicle cells from 9 mice	Fig. 5d, Graph	errors bars are mean +/- SEM and scatter plot	Fig. 5d Graph	p = 0.035	Fig. 5d Graph		
+ -	Fig. 5d	Dunn's test	Fig.5 Legend	24,21	24 scrShank3 Ro cells from 6 mice, 21 shShank3 Ro cells from 4 mice	Fig. 5d, Graph	errors bars are mean +/- SEM and scatter plot	Fig. 5c Graph	p = 0.208	Fig. 5d Graph		
+ -	Fig. 5d	Kruskal-Wallis test	Fig. 5d, right, Legend	15, 15, 24, 21	15 scrShank3 vehicle cells from 4 mice, 15 shShank3 vehicle cells from 9 mice, 24 scrShank3 Ro cells from 6 mice, 21 shShank3 Ro cells from 4 mice	Fig. 5d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 5d Graph	p = 0.002	Fig. 5d Legend	K (3) = 14.62	Fig. 5d Legend
+ -	Fig. 5d	Dunn's test	Fig. 5d, Legend	15, 15	15 scrShank3 vehicle cells from 4 mice, 15 shShank3 vehicle cells from 9 mice	Fig. 5d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 5d Graph	p = 0.035	Fig.5d Graph		
+ -	Fig. 5d	Dunn's test	Fig. 5d Legend	24, 21	24 scrShank3 Ro cells from 6 mice, 21 shShank3 Ro cells from 4 mice	Fig. 5d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 5d Graph	p = 0.251	Fig. 5d Graph		
+ -	Fig. 5c	Kruskal-Wallis test	Fig. 5c Legend	15, 15, 24, 21	15 scrShank3 vehicle cells from 4 mice, 15 shShank3 vehicle cells from 9 mice, 24 scrShank3 Ro cells from 6 mice, 21 shShank3 Ro cells from 4 mice	Fig. 5c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 5c Graph	p = 0.013	Fig. 5c Legend	K (3) = 10.85	Fig. 5c Legend
+ -	Fig. 5c	Dunn's test	Fig. 5c Legend	15,15	15 scrShank3 vehicle cells from 4 mice, 15 shShank3 vehicle cells from 9 mice	Fig. 5c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 5c Graph	p = 0.151	Fig. 5c Graph		
+ -	Fig. 5c	Dunn's test	Fig. 5c Legend	24, 21	24 scrShank3 Ro cells from 6 mice, 21 shShank3 Ro cells from 4 mice	Fig. 5c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 5c Graph	p = 0.908	Fig. 5c Graph		
+ -	Fig. 5f	Mann-Whitney test	Fig. 5f Legend	34, 35	34 scrShank3 vehicle cells from 8 mice, 35 shShank3 vehicle cells from 7 mice	Fig. 5f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 5f Graph	p = 0.043	Fig. 5f Graph	U = 425.5	Fig. 5f Legend
+ -	Fig. 6c	RM Two-Way ANOVA	Fig. 6c Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. 6c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6c Graph	time x virus x drug interaction p =0.039 virus main effect p = 0.030	Fig. 6c Legend	time x virus x drug interaction F(1,54) = 4.48 virus main effect F (1,54) = 4.99	Fig. 6c Legend
+ -	Fig. 6c	RM ANOVA within subjects	Fig. 6c Legend	16	16 scrShank3 vehicle mice	Fig. 6c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6c Graph	time main effect p = 0.261	Fig. 6c Graph	F (1,15) = 1.36	Fig. 6c Legend
+ -	Fig. 6c	RM ANOVA within subjects	Fig. 6c Legend	13	13 shShank3 vehicle mice	Fig. 6c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6c Graph	time main effect p = 0.016	Fig. 6c Graph	F (1,12) = 7.87	Fig. 6c Legend
+ -	Fig. 6c	RM ANOVA within subjects	Fig. 6c Legend	13	13 scrShank3 Ro mice	Fig. 6c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6c Graph	time main effect p = 0.623	Fig. 6c Graph	F (1,12) = 0.26	Fig. 6c Legend

+ -	Fig. 6c	RM ANOVA within subjects	Fig. 6c Legend	16	16 shShank3 Ro mice	Fig. 6c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6c Graph	time main effect p = 0.877	Fig. 6c Graph	F (1,15) = 0.03	Fig. 6c Legend
+ -	Fig. 6f	Two-Way ANOVA	Fig. 6f Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. 6f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6f Graph	virus x drug interaction p = 0.012 virus main effect p = 0.442 drug main effect p = 0.182	Fig. 6f Legend	virus x drug interaction F(1,54) = 6.76 virus main effect F(1,54) = 0.60 drug main effect F (1,54) = 1.83	Fig. 6f Legend
+ -	Fig. 6f	Tukey HSD	Fig. 6f Legend	16, 13	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice	Fig. 6f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6f Graph	p = 0.070	Fig. 6f Graph		
+ -	Fig. 6f	Tukey HSD	Fig. 6f Legend	13, 16	13 shShank3 vehicle mice, 16 shShank3 Ro mice	Fig. 6f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6f Graph	p = 0.029	Fig 6f Graph		
+ -	Fig. 6f	Tukey HSD	Fig. 6f Legend	16, 16	16 scrShank3 vehicle mice, 16 shShank3 Ro mice	Fig. 6f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6f Graph	p = 0.912	Fig 6f Graph		
+ -	Fig. 6e	Two-Way ANOVA	Fig. 6e Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. 6e Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6e Graph	virus x drug interaction p = 0.305 virus main effect p = 0.055 drug main effect p = 0.606	Fig. 6e Legend	virus x drug interaction F(1,54) = 1.07 virus main effect F(1,54) = 3.84 drug main effect F (1,54) = 0.27	Fig. 6e Legend
+ -	Fig. 6e	Tukey HSD	Fig. 6e Legend	16, 13	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice	Fig. 6e Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6e Graph	p = 0.040	Fig. 6e Graph		
+ -	Fig. 6e	Tukey HSD	Fig. 6e Legend	13, 16	13 shShank3 vehicle mice, 16 shShank3 Ro mice	Fig. 6e Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6e Graph	p = 0.397	Fig. 6e Graph		
+ -	Fig. 6e	Tukey HSD	Fig. 6e Legend	16, 16	16 scrShank3 vehicle mice, 16 shShank3 Ro mice	Fig. 6e Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6e Graph	p = 0.411	Fig. 6e Graph		
+ -	Fig. 6d	Two-Way ANOVA	Fig. 6d Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. 6d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6d Graph	virus x drug interaction p = 0.018 virus main effect p = 0.194 drug main effect p = 0.875	Fig. 6d Legend	virus x drug interaction F(1,54) = 5.98 virus main effect F(1,54) = 1.73 drug main effect F (1,54) = 0.03	Fig. 6d Legend
+ -	Fig. 6d	Tukey HSD	Fig. 6d Legend	16, 13	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice	Fig. 6d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6d Graph	p = 0.028	Fig. 6d Graph		
+ -	Fig. 6d	Tukey HSD	Fig. 6d Legend	13, 16	13 shShank3 vehicle mice, 16 shShank3 Ro mice	Fig. 6d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6d Graph	p = 0.166	Fig. 6d Graph		
+ -	Fig. 6d	Tukey HSD	Fig. 6d Legend	16, 16	16 scrShank3 vehicle mice, 16 shShank3 Ro mice	Fig. 6d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 6d Graph	p = 0.664	Fig. 6d Graph		

+ -	Fig. 7b	unpaired t-test	Fig. 7b Legend	8, 10	8 shShank3 vehicle cells from 4 mice, 10 shShank3 Ro cells from 5 mice	Fig. 7b Graph	errors bars are mean +/- SEM and scatter plot	Fig. 7b Graph	p = 0.049	Fig. 7b Graph	t (8.33) = 2.30	Fig. 7b Legend
+ -	Fig. 7c	RM ANOVA	Fig. 7c Legend	10, 14	10 shShank3 vehicle mice, 14 shShank3 Ro mice	Fig. 7c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 7c Graph	time x group interaction p = 0.028 group main effect p = 0.644	Fig. 7c Graph	time x group interaction F (1,22) = 5.56 group main effect F(1,22) = 0.22	Fig. 7c Legend
+ -	Fig. 7c	RM ANOVA within subjects	Fig.7c	10	10 shShank3 vehicle mice	Fig. 7c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 7c Graph	time main effect p = 0.017	Fig. 7c Graph	time main effect F(1,9) = 8.58	Fig. 7c Legend
+ -	Fig. 7c	RM ANOVA within subjects	Fig.7c	14	14 shShank3 Ro mice	Fig. 7c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 7c Graph	time main effect p = 0.634	Fig. 7c Graph	time main effect F(1,13) = 0.24	Fig. 7c Legend
+ -	Fig. 7d	unpaired t-test	Fig.7d	10, 14	10 shShank3 vehicle mice, 14 shShank3 Ro mice	Fig. 7d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 7d Graph	p = 0.009	Fig. 7d Graph	t (22) = -2.88	Fig. 7d Graph
+ -	Fig. 7d	Mann-Whitney test	Fig.7d Legend	10, 14	10 shShank3 vehicle mice, 14 shShank3 Ro mice	Fig. 7d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 7d Graph	p = 0.069	Fig. 7d Graph	U = 39	Fig. 7d Graph
+ -	Fig. 7d	unpaired t-test	Fig.7d Legend	10, 14	10 shShank3 vehicle mice, 14 shShank3 Ro mice	Fig. 7d Graph	errors bars are mean +/- SEM and scatter plot	Fig. 7d Graph	p = 0.023	Fig. 7d Graph	t (22) = -2.44	Fig. 7d Graph
+ -	Fig. 8f	RM Two-Way ANOVA	Fig. 8f Legend	10, 11, 8, 6	10 scrShank3 off mice, 11 shShank3 off mice, 8 scrShank3 on mice, 6 shShank3 on mice	Fig. 8f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 8f Graph	time x drug x virus interaction p = 0.300 light x virus interaction p = 0.025 virus main effect p = 0.141 light main effect p = 0.001	Fig. 8f Legend	time x drug x virus interaction F (1,31) = 1.11 light x virus interaction F (1,31) = 5.52 virus main effect F (1,31) = 2.28 light main effect F (1,31) = 14.17	Fig. 8f Legend
+ -	Fig. 8f	RM ANOVA within subjects	Fig. 8f	10	10 scrShank3 off	Fig. 8f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 8f Graph	time main effect p = 0.640	Fig. 8f Graph	time main effect F(1,9) = 0.23	Fig. 8f Legend
+ -	Fig. 8f	RM ANOVA within subjects	Fig. 8f	11	11 shShank3 off	Fig. 8f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 8f Graph	time main effect p = 0.006	Fig. 8f Graph	time main effect F(1,10) = 11.77	Fig. 8f Legend
+ -	Fig. 8f	RM ANOVA within subjects	Fig. 8f	8	8 scrShank3 on	Fig. 8f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 8f Graph	time main effect p < 0.001	Fig. 8f Graph	time main effect F(1,7) = 55.14	Fig. 8f Legend
+ -	Fig. 8f	RM ANOVA within subjects	Fig. 8f	6	6 shShank3 on mice	Fig. 8f Graph	errors bars are mean +/- SEM and scatter plot	Fig. 8f Graph	time main effect p = 0.030	Fig. 8f Graph	time main effect F(1,5) = 9.03	Fig. 8f Legend
+ -	Fig. 8g	Two-Way ANOVA	Fig. 8g Legend	10, 11, 8, 6	10 scrShank3 off mice, 11 shShank3 off mice, 8 scrShank3 on mice, 6 shShank3 on mice	Fig. 8g Graph	errors bars are mean +/- SEM and scatter plot	Fig. 8g Graph	virus x light interaction p = 0.267 virus main effect p = 0.038 light main effect p < 0.001	Fig. 8g Legend	virus x light interaction F(1,31) = 1.28 virus main effect F(1,31) = 4.70 light main effect F(1,31) = 16.93	Fig. 8g Legend
+ -	Fig. 8g	Dunnett test	Fig. 8g Legend	10,11	10 scrShank3 off mice, 11 shShank3 off mice	Fig. 8g Graph	errors bars are mean +/- SEM and scatter plot	Fig. 8g Graph	p = 0.047	Fig. 8g Graph		

+ −	Fig. 8g	Dunnett test	Fig. 8g Legend	10, 6	10 scrShank3 off mice, 6 shShank3 on mice	Fig. 8g Graph	errors bars are mean +/- SEM and scatter plot	Fig. 8g Graph	p = 0.405	Fig. 8g Graph		
+ −	Fig.4 c	Tukey HSD	Fig. 4c Legend	5, 5	5 scrShank3 vehicle from 4 mice, 5 scrShank3 Ro from 5 mice	Fig. 4c Graph	errors bars are mean +/- SEM and scatter plot	Fig. 4c Graph	p > 0.999	Fig. 4c Graph		
+ −	Fig. 4c	Tukey HSD	Fig. 4d Legend	9,6	9 scrShank3 Vehicle from 5 mice, 6 scrShank3 Ro from 4 mice	Fig. 4d	errors bars are mean +/- SEM and scatter plot	Fig. 4d Graph	p > 0.999	Fig. 4d Graph		
+ −	Fig. S1c	Mann-Whitney	Fig. S1c Legend	5,5	5 infected side from 5 shShank3 mice, 5 uninfected side from 5 shShank3 mice	Fig. S1c Graph	errors bars are mean +/- SEM and scatter plot	Fig. S1c Graph	p = 0.667	Fig. S1c Graph	U = 10.00	Fig. S1c Legend
+ −	Fig. S2a, left	Mann-Whitney	Fig. S2a, Legend	14, 12	14 putative DA from 9 mice, 12 putative GABA from 11 mice	Fig. S2a, Graph	errors bars are mean +/- SEM and scatter plot	Fig. S2a, Graph	p < 0.001	Fig. S2a, Graph	U < 0.001	Fig. S2, Legend
+ −	Fig. S2a, right	Mann-Whitney	Fig. S2a, Legend	14, 12	14 putative DA from 9 mice, 12 putative GABA from 11 mice	Fig. S2a, Graph	errors bars are mean +/- SEM and scatter plot	Fig. S2a, Graph	p < 0.001	Fig. S2a, Graph	U = 13.00	Fig. S2, Legend
+ −	Fig. S2b, left	Mann-Whitney	Fig. S2b, Legend	14, 11	14 putative DA from 11 mice, 11 putative GABA from 8 mice	Fig. S2b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S2b Graph	p < 0.001	Fig. S2b Graph	U < 0.001	Fig. S2b Legend
+ −	Fig. S2b, right	Mann-Whitney	Fig. S2b, Legend	14, 11	14 putative DA from 11 mice, 11 putative GABA from 8 mice	Fig. S2b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S2b Graph	p < 0.001	Fig. S2b Graph	U = 10.00	Fig. S2b Legend
+ −	Fig. S3b	unpaired t-test	Fig. S3b, Legend	10, 10	10 shShank3 cells from 5 vehicle treated mice, 10 shShank3 cells from 4 Ro treated mice	Fig. S3b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S3b Graph	p = 0.903	Fig. S3b Graph	t (18) = 0.123	Fig. S3b, Legend
+ −	Fig. S4b	Mann-Whitney test	Fig. S4b Legend	4, 4	4 scrShank3 vehicle mice, 4 shShank3 vehicle mice	Fig. S4b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S4b Graph	p = 0.882	Fig. S4b Graph	U = 8.00	Fig. S4b Legend
+ −	Fig. S5a	Two-Way ANOVA	Fig. S5a Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S5a Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5a Graph	virus x drug interaction p = 0.428 virus main effect p = 0.909 drug main effect p = 0.312	exact values not reported since significance not reached	virus x drug interaction F(1,54)=0.64 virus main effect F(1,54)=0.02 drug main effect F(1,54)=1.04	exact values not reported
+ −	Fig. S5b	Two-Way ANOVA	Fig. S5b Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S5b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5b Graph	virus x drug interaction p = 0.030 virus main effect p = 0.655 drug main effect p = 0.763	Fig. S5b Legend	virus x drug interaction F(1,54)= 4.96 virus main effect F(1,54)= 0.20 drug main effect F(1,54)=0.09	Fig. S5b Legend
+ −	Fig. S5b	Tukey HSD	Fig. S5b Legend	16, 13	16 scrShank3 vehicle mice, 13 shShank3 Vehicle mice	Fig. S5b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5b Graph	p = 0.450	Fig. S5b Graph		

+ -	Fig. S5b	Tukey HSD	Fig. S5b Legend	13, 16	13 shShank3 vehicle, 16 shShank3 Ro mice	Fig. S5b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5b Graph	p = 0.205	Fig. S5b Graph		
+ -	Fig. S5b	Tukey HSD	Fig. S5b Legend	16, 16	16 scrShank3 vehicle mice, 16 shShank3 Ro mice	Fig. S5b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5b Graph	p = 0.850	Fig. S5b Graph		
+ -	Fig. S5c	Two-Way ANOVA	Fig. S5c Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S5c Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5c Graph	virus x drug interaction p = 0.192 virus main effect p = 0.020 drug main effect p = 0.931	Fig. S5c Legend	virus x drug interaction F(1,54)= 1.74 virus main effect F(1,54)= 5.76 drug main effect F(1,54)=0.01	Fig. S5c Legend
+ -	Fig. S5c	Tukey HSD	Fig. S5c Legend	16, 13	16 scrShank3 vehicle mice, 13 shShank3 Vehicle mice	Fig. S5c Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5c Graph	p = 0.041	Fig. S5c Graph		
+ -	Fig. S5c	Tukey HSD	Fig. S5c Legend	13, 16	13 shShank3 vehicle, 16 shShank3 Ro mice	Fig. S5c Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5c Graph	p = 0.610	Fig. S5c Graph		
+ -	Fig. S5c	Tukey HSD	Fig. S5c Legend	16, 16	16 scrShank3 vehicle mice, 16 shShank3 Ro mice	Fig. S5c Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5c Graph	p = 0.234	Fig. S5c Graph		
+ -	Fig. S5d	Two-Way ANOVA	Fig. S5d Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S5d Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5d Graph	virus x drug interaction p = 0.416 virus main effect p = 0.042 drug main effect p = 0.406	Fig. S5d Legend	virus x drug interaction F(1,54)= 0.67 virus main effect F(1,54)= 4.33 drug main effect F(1,54)=0.45	Fig. S5d Legend
+ -	Fig. S5d	Tukey HSD	Fig. S5d Legend	16, 13	16 scrShank3 vehicle mice, 13 shShank3 Vehicle mice	Fig. S5d Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5d Graph	p = 0.114	Fig. S5d Graph		
+ -	Fig. S5d	Tukey HSD	Fig. S5d Legend	13, 16	13 shShank3 vehicle, 16 shShank3 Ro mice	Fig. S5d Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5d Graph	p = 0.994	Fig. S5d Graph		
+ -	Fig. S5d	Tukey HSD	Fig. S5d Legend	16, 16	16 scrShank3 vehicle mice, 16 shShank3 Ro mice	Fig. S5d Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5d Graph	p = 0.113	Fig. S5d Graph		
+ -	Fig. S5e	Two-Way ANOVA	Fig. S5e Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S5e Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5e Graph	virus x drug interaction p = 0.016 virus main effect p = 0.703 drug main effect p = 0.010	Fig. S5e Legend	virus x drug interaction F(1,54)= 3.68 virus main effect F(1,54)= 0.15 drug main effect F(1,54)=7.15	Fig. S5e Legend
+ -	Fig. S5e	Tukey HSD	Fig. S5e Legend	16, 13	16 scrShank3 vehicle mice, 13 shShank3 Vehicle mice	Fig. S5e Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5e Graph	p = 0.538	Fig. S5e Graph		
+ -	Fig. S5e	Tukey HSD	Fig. S5e Legend	13, 16	13 shShank3 vehicle, 16 shShank3 Ro mice	Fig. S5e Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5e Graph	p = 0.007	Fig. S5e Graph		

+/-	Fig.	Test	Legend	n	Mice	Graph	Error bars	Graph	p value	Ref	F statistic	Ref
+ -	Fig. S5e	Tukey HSD	Fig. S5e Legend	16, 16	16 scrShank3 vehicle mice, 16 shShank3 Ro mice	Fig. S5e Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5e Graph	p = 0.074	Fig. S5e Graph		
+ -	Fig. S5f	Two-Way ANOVA	Fig. S5f Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S5f Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5f Graph	virus x drug interaction p = 0.085 virus main effect p = 0.506 drug main effect p = 0.406	exact values not reported since significance not reached	virus x drug interaction F(1,54)= 3.08 virus main effect F(1,54)= 0.45 drug main effect F(1,54)=0.70	exact values not reported
+ -	Fig. S5g	Two-Way ANOVA	Fig. S5g Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S5g Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5g Graph	virus x drug interaction p = 0.240 virus main effect p = 0.215 drug main effect p = 0.304	exact values not reported since significance not reached	virus x drug interaction F(1,54)= 1.41 virus main effect F(1,54)= 1.57 drug main effect F(1,54)=1.07	exact values not reported
+ -	Fig. S5h	Two-Way ANOVA	Fig. S5h Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S5h Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5h Graph	virus x drug interaction p = 0.031 virus main effect p = 0.346 drug main effect p = 0.802	Fig. S5h Legend	virus x drug interaction F(1,54)= 4.88 virus main effect F(1,54)= 0.90 drug main effect F(1,54)=0.06	Fig. S5h Legend
+ -	Fig. S5h	Tukey HSD	Fig. S5h Legend	16, 13	16 scrShank3 vehicle mice, 13 shShank3 Vehicle mice	Fig. S5h Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5h Graph	p = 0.084	Fig. S5h Graph		
+ -	Fig. S5h	Tukey HSD	Fig. S5h Legend	13, 16	13 shShank3 vehicle, 16 shShank3 Ro mice	Fig. S5h Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5h Graph	p = 0.214	Fig. S5h Graph		
+ -	Fig. S5h	Tukey HSD	Fig. S5h Legend	16, 16	16 scrShank3 vehicle mice, 16 shShank3 Ro mice	Fig. S5h Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5h Graph	p = 0.866	Fig. S5h Graph		
+ -	Fig. S5i	Two-Way ANOVA	Fig. S5h Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S5h Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5h Graph	virus x drug interaction p = 0.122 virus main effect p = 0.976 drug main effect p = 0.143	exact values not reported since significance not reached	virus x drug interaction F(1,54)= 2.47 virus main effect F(1,54) = 0.001 drug main effect F(1,54)= 2.21	exact values not reported
+ -	Fig. S5j	Two-Way ANOVA	Fig. S5j Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S5j Graph	errors bars are mean +/- SEM and scatter plot	Fig. S5j Graph	virus x drug interaction p = 0.122 virus main effect p = 0.976 drug main effect p = 0.143	exact values not reported since significance not reached	virus x drug interaction F(1,54)= 2.47 virus main effect F(1,54) = 0.001 drug main effect F(1,54)= 2.21	exact values not reported

+−	Fig.	Test		n		Error bars		p value		Statistic	
+ −	Fig. S6e	unpaired t-test	Fig. S6e Legend	16, 18	16 scrShank3 mice, 18 shShank3 mice	Fig. S6e Graph	errors bars are mean +/- SEM and scatter plot	Fig. S6e Graph	p = 0.030	Fig. S6e Graph	t (32) = 2.27	Fig. S6e Legend
+ −	Fig. S6f	unpaired t-test	Fig. S6f Legend	16, 18	16 scrShank3 mice, 18 shShank3 mice	Fig. S6f Graph	errors bars are mean +/- SEM and scatter plot	Fig. S6f Graph	p = 0.013	Fig. S6f Graph	t (32) = 2.64	Fig. S6f Legend
+ −	Fig. S6g	Mann-Whitney	Fig. S6g Legend	16, 18	16 scrShank3 mice, 18 shShank3 mice	Fig. S6g Graph	errors bars are mean +/- SEM and scatter plot	Fig. S6g Graph	p = 0.448	Fig. S6g Graph	U = 122.00	Fig. S6g Legend
+ −	Fig. S6i	unpaired t-test	Fig. S6i Legend	16, 18	16 scrShank3 mice, 18 shShank3 mice	Fig. S6i Graph	errors bars are mean +/- SEM and scatter plot	Fig. S6i Graph	p = 0.408	Fig. S6i Graph	t (32) = 0.84	Fig. S6i Legend
+ −	Fig. S6j	Mann-Whitney	Fig. S6j Legend	16, 18	16 scrShank3 mice, 18 shShank3 mice	Fig. S6j graph	errors bars are mean +/- SEM and scatter plot	Fig. S6j graph	p = 0.704	Fig. S6j graph	U = 133.00	Fig. S6j Legend
+ −	Fig. S6k	Mann-Whitney	Fig. S6k Legend	16, 18	16 scrShank3 mice, 18 shShank3 mice	Fig. S6k graph	errors bars are mean +/- SEM and scatter plot	Fig. S6k graph	p = 0.679	Fig. S6k graph	U = 132.00	Fig. S6k Legend
+ −	Fig. S6l	unpaired t-test	Fig. S6l Legend	12, 11	12 scrShank3 mice, 11 shShank3 mice	Fig. S6l graph	errors bars are mean +/- SEM and scatter plot	Fig. S6l graph	p < 0.001	Fig. S6l graph	t (21) = 6.83	Fig. S6l Legend
+ −	Fig. S6m	unpaired t-tests	Fig. S6l Legend	12, 11	12 scrShank3 mice, 11 shShank3 mice	Fig. S6m Graph	errors bars are mean +/- SEM and scatter plot	Fig. S6m Graph	water p < 0.001 sucrose p = 0.182	Fig. S6m Graph	water t (21) = 5.26 sucrose t (21) = -1.38	Fig. S6m Legend
+ −	Fig. S6n	Mann-Whitney	Fig. S6n Legend	12, 11	12 scrShank3 mice, 11 shShank3 mice	Fig. S6n Graph	errors bars are mean +/- SEM and scatter plot	Fig. S6n Graph	p = 0.712	Fig. S6n Graph	U = 60.00	Fig. S6n Legend
+ −	Fig. S6o	Mann-Whitney and unpaired t-tests	Fig. S6o Legend	12, 11	12 scrShank3 mice, 11 shShank3 mice	Fig. S6o Graph	errors bars are mean +/- SEM and scatter plot	Fig. S6o Graph	water p=0.854 sucrose p=0.925	Fig. S6o Graph	water U = 63.00 sucrose t(21) = 0.09	Fig. S6o Legend
+ −	Fig. S7a	Mann-Whitney	Fig. S7a Legend	14, 16	14 scrShank3 mice, 16 shShank3 mice	Fig. S7a Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7a Graph	p = 0.135	Fig. S7a Graph	U = 76.00	Fig. S7a Legend
+ −	Fig. S7b	Mann-Whitney	Fig. S7b Legend	14, 16	14 scrShank3 mice, 16 shShank3 mice	Fig. S7b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7b Graph	p = 0.135	Fig. S7b Graph	U = 76.00	Fig. S7b Legend
+ −	Fig. S7c	unpaired t-tests	Fig. S7c Legend	14, 16	14 scrShank3 mice, 16 shShank3 mice	Fig. S7c Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7c Graph	wall p = 0.713 intermediate p = 0.535 center p = 0.704	Fig. S7c Graph	wall t (28) = 0.37 intermediate t(28) = -0.63 center t(28) = 0.38	Fig. S7c Legend
+ −	Fig. S7d	Mann-Whitney	Fig. S7d Legend	14, 16	14 scrShank3 mice, 16 shShank3 mice	Fig. S7d Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7d Graph	p = 0.002	Fig. S7d Graph	U = 38.50	Fig. S7d Legend
+ −	Fig. S7e	Two-Way ANOVA	Fig. S7e Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S7e Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7e Graph	virus x drug interaction p = 0.044 virus main effect p = 0.995 drug main effect p = 0.049	Fig. S7e legend	virus x drug interaction F (1,54) = 4.27 virus main effect F (1,54) <0.001 drug main effect F (1,54) = 4.05	Fig. S7e legend
+ −	Fig. S7e	Tukey HSD	Fig. S7e Legend	16, 13	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice	Fig. S7e Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7e Graph	p = 0.322	Fig. S7e graph		

+ −	Fig. S7e	Tukey HSD	Fig. S7e Legend	13, 16	13 shShank3 vehicle mice, 16 shShank3 Ro mice	Fig. S7e Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7e Graph	p = 0.017	Fig. S7e graph		
+ −	Fig. S7e	Tukey HSD	Fig. S7e Legend	16, 16	16 scrShank3 vehicle mice, 16 shShank3 Ro mice	Fig. S7e Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7e Graph	p = 0.297	Fig. S7e graph		
+ −	Fig. S7f	Two-Way ANOVA	Fig. S7f Legend	16, 13, 13, 16	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice, 13 scrShank3 Ro mice, 16 shShank3 Ro mice	Fig. S7f Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7f Graph	virus x drug interaction p = 0.045 virus main effect p = 0.971 drug main effect p = 0.061	Fig. S7f legend	virus x drug interaction $F_{(1,54)}$ = 4.20 virus main effect $F_{(1,54)}$ <0.001 drug main effect $F_{(1,54)}$ = 3.65	Fig. S7f legend
+ −	Fig. S7f	Tukey HSD	Fig. S7f Legend	16, 13	16 scrShank3 vehicle mice, 13 shShank3 vehicle mice	Fig. S7f Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7f Graph	p = 0.342	Fig. S7f Graph		
+ −	Fig. S7f	Tukey HSD	Fig. S7f Legend	13, 16	13 shShank3 vehicle mice, 16 shShank3 Ro mice	Fig. S7f Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7f Graph	p = 0.021	Fig. S7f Graph		
+ −	Fig. S7f	Tukey HSD	Fig. S7f Legend	16, 16	16 scrShank3 vehicle mice, 16 shShank3 Ro mice	Fig. S7f Graph	errors bars are mean +/- SEM and scatter plot	Fig. S7f Graph	p = 0.327	Fig. S7f Graph		
+ −	Fig. S8a left	unpaired t-test	Fig. S8a Legend	10, 14	10 shShank3 vehicle, 14 shShank3 Ro	Fig. S8a Graph	errors bars are mean +/- SEM and scatter plot	Fig. S8a Graph	p = 0.832	Fig. S8a Graph	t (22) = 0.21	Fig. S8a Legend
+ −	Fig. S8a middle	unpaired t-test	Fig. S8a Legend	10, 14	10 shShank3 vehicle, 14 shShank3 Ro	Fig. S8a Graph	errors bars are mean +/- SEM and scatter plot	Fig. S8a Graph	p = 0.208	Fig. S8a Graph	t (22) = -1.30	Fig. S8a Legend
+ −	Fig. S8a right	unpaired t-test	Fig. S8a Legend	10, 14	10 shShank3 vehicle, 14 shShank3 Ro	Fig. S8a Graph	errors bars are mean +/- SEM and scatter plot	Fig. S8a Graph	p = 0.227	Fig. S8a Graph	t (22) = -1.24	Fig. S8a Legend
+ −	Fig. S8b left	unpaired t-test	Fig. S8b Legend	10, 14	10 shShank3 vehicle, 14 shShank3 Ro	Fig. S8b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S8b Graph	p = 0.280	Fig. S8b Graph	t (22) = 1.11	Fig. S8b Legend
+ −	Fig. S8b, middle	unpaired t-test	Fig. S8b Legend	10, 14	10 shShank3 vehicle, 14 shShank3 Ro	Fig. S8b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S8b Graph	p = 0.958	Fig. S8b Graph	t (22) = -0.05	Fig. S8b legend
+ −	Fig. S8b, right	unpaired t-test	Fig. S8b Legend	10, 14	10 shShank3 vehicle, 14 shShank3 Ro	Fig. S8b Graph	errors bars are mean +/- SEM and scatter plot	Fig. S8b Graph	p = 0.498	Fig. S8b Graph	t (22) = 0.69	Fig. S8b legend

▶ Representative figures

1. Are any representative images shown (including Western blots and immunohistochemistry/staining) in the paper?

   If so, what figure(s)?

   Yes, Fig.1, Fig.8, S1, S4, S6

2. For each representative image, is there a clear statement of how many times this experiment was successfully repeated and a discussion of any limitations in repeatability?

   If so, where is this reported (section, paragraph #)?

   No, but the infection site has been validated for each animal used for the behavioral test and the in vivo electrophysiology. The WB image is from 4 mice. See table above for details.

▸ Statistics and general methods

1. Is there a justification of the sample size?

   If so, how was it justified?

   Where (section, paragraph #)?

   Even if no sample size calculation was performed, authors should report why the sample size is adequate to measure their effect size.

   > Based on previous experiments and publications, we have used a sample size that allow acceptable variability in order to draw valid conclusion.

2. Are statistical tests justified as appropriate for every figure?

   Where (section, paragraph #)?

   > Yes, the appropriate statistical analysis is justified in details in Materials and Methods. The specific tests applied for each graph are also reported in the Figure legends.

   a. If there is a section summarizing the statistical methods in the methods, is the statistical test for each experiment clearly defined?

      > Yes, in Materials and Methods section there is a paragraph entitled Statistical Analysis where we justified each test for each experiment. For each experiment the statistical test is detailed in the corresponding figure legend.

   b. Do the data meet the assumptions of the specific statistical test you chose (e.g. normality for a parametric test)?

      Where is this described (section, paragraph #)?

      > Yes, as reported in the Statistical Analysis paragraph of Materials and Methods we report that the Shapiro-Wilk test was used to assess the normality for all the data. If violated, non-parametric tests were used.

   c. Is there any estimate of variance within each group of data?

      Is the variance similar between groups that are being statistically compared?

      Where is this described (section, paragraph #)?

      > For each experiment the equality of variances has been assessed with Levene's test and when violated, the corrected degree of freedom for the t-test has been reported. As described in the Statistical Analysis session.

   d. Are tests specified as one- or two-sided?

      > Yes, two-sided tests were used for all the experiments.

   e. Are there adjustments for multiple comparisons?

      > Yes, following Two-Way ANOVA post hoc tests that correct for multiple comparisons were used.

3. Are criteria for excluding data points reported?

   Was this criterion established prior to data collection?

   Where is this described (section, paragraph #)?

   > Yes, the criteria were established prior to data collection and reported in the Material and Methods section.

4. Define the method of randomization used to assign subjects (or samples) to the experimental groups and to collect and process data.

   If no randomization was used, state so.

   Where does this appear (section, paragraph #)?

   > The day of the viral infection, we randomly assigned within the same litter the mice to their experimental group.
   > This information appears in the text in the Material and methods session.

5. Is a statement of the extent to which investigator knew the group allocation during the experiment and in assessing outcome included?

   If no blinding was done, state so.

   Where (section, paragraph #)?

   > The behavioral experiments were performed, assessed and analyzed by an experimenter that was blind to the treatments and conditions. For the physiology either the viral infection or the treatment was blind to the experimenter. This information appears in the text in the Materials and methods session.

6. For experiments in live vertebrates, is a statement of compliance with ethical guidelines/regulations included?

   Where (section, paragraph #)?

   > Yes it is state in the Material and Methods session, first paragrapher "Animals"

7. Is the species of the animals used reported?

   Where (section, paragraph #)?

   > Yes it is state in the Material and Methods section, first paragrapher "Animals"

8. Is the strain of the animals (including background strains of KO/ transgenic animals used) reported?

   Where (section, paragraph #)?

   > Yes it is state in the Material and Methods section, first paragrapher "Animals"

9. Is the sex of the animals/subjects used reported?

   Where (section, paragraph #)?

   > We balanced female and male in this study according to the experimental groups and we now report it in the Materals and Methods section.

10. Is the age of the animals/subjects reported?

    Where (section, paragraph #)?

    > Yes we report the age of the animals in the figures when we indicate the experimental protocol, above the graphs and it is also stated in the result session

11. For animals housed in a vivarium, is the light/dark cycle reported?

    Where (section, paragraph #)?

    > Yes, we now report a standard light/dark cycle in the Materials and methods session.

12. For animals housed in a vivarium, is the housing group (i.e. number of animals per cage) reported?

    Where (section, paragraph #)?

    > We state that the animals were housed in groups in the Materials and Methods session.

13. For behavioral experiments, is the time of day reported (e.g. light or dark cycle)?

    Where (section, paragraph #)?

    > We did the experiments during the light cycle. We now report it into the Materials and methods session.

14. Is the previous history of the animals/subjects (e.g. prior drug administration, surgery, behavioral testing) reported?

    Where (section, paragraph #)?

    > The history of the animals is reported in result, material and methods and legend sessions.

    a. If multiple behavioral tests were conducted in the same group of animals, is this reported?

       Where (section, paragraph #)?

       > No

15. If any animals/subjects were excluded from analysis, is this reported?

    Where (section, paragraph #)?

    > Yes, is reported in the material and methods session.

    a. How were the criteria for exclusion defined?

       Where is this described (section, paragraph #)?

       > The animals were excluded if no virus infection was detected at the end of the experiment.
       > In the behavioral experiments we excluded one animal that did not show any social preference during the test. This is stated in the Material and Methods session.

b. Specify reasons for any discrepancy between the number of animals at the beginning and end of the study.

Where is this described (section, paragraph #)?

NA

▸ Reagents

1. Have antibodies been validated for use in the system under study (assay and species)?

Yes, the antibodies used in the study were validated in IHC and WB experiments in mouse and rat.

    a. Is antibody catalog number given?

Where does this appear (section, paragraph #)?

Yes, in the Materials and Methods session.

    b. Where were the validation data reported (citation, supplementary information, Antibodypedia)?

Where does this appear (section, paragraph #)?

The validation data is reported in the data sheet of the company.

2. Cell line identity

    a. Are any cell lines used in this paper listed in the database of commonly misidentified cell lines maintained by ICLAC and NCBI Biosample?

Where (section, paragraph #)?

NA

    b. If yes, include in the Methods section a scientific justification of their use--indicate here in which section and paragraph the justification can be found.

NA

    c. For each cell line, include in the Methods section a statement that specifies:

      - the source of the cell lines

      - have the cell lines been authenticated? If so, by which method?

      - have the cell lines been tested for mycoplasma contamination?

Where (section, paragraph #)?

NA

▶ Data deposition

Data deposition in a public repository is mandatory for:

    a. Protein, DNA and RNA sequences
    b. Macromolecular structures
    c. Crystallographic data for small molecules
    d. Microarray data

Deposition is strongly recommended for many other datasets for which structured public repositories exist; more details on our data policy are available here. We encourage the provision of other source data in supplementary information or in unstructured repositories such as Figshare and Dryad.

We encourage publication of Data Descriptors (see Scientific Data) to maximize data reuse.

1. Are accession codes for deposit dates provided?

    Where (section, paragraph #)?

> Yes, we reported the GeneBank code in the accession code session.

▶ Computer code/software

Any custom algorithm/software that is central to the methods must be supplied by the authors in a usable and readable form for readers at the time of publication. However, referees may ask for this information at any time during the review process.

1. Identify all custom software or scripts that were required to conduct the study and where in the procedures each was used.

> NA

2. If computer code was used to generate results that are central to the paper's conclusions, include a statement in the Methods section under "**Code availability**" to indicate whether and how the code can be accessed. Include version information as necessary and any restrictions on availability.

> NA

▶ Human subjects

1. Which IRB approved the protocol?

    Where is this stated (section, paragraph #)?

> NA

2. Is demographic information on all subjects provided?

    Where (section, paragraph #)?

> NA

3. Is the number of human subjects, their age and sex clearly defined?

    Where (section, paragraph #)?

> NA

4. Are the inclusion and exclusion criteria (if any) clearly specified?

    Where (section, paragraph #)?

> NA

5. How well were the groups matched?

   Where is this information described (section, paragraph #)?

   NA

6. Is a statement included confirming that informed consent was obtained from all subjects?

   Where (section, paragraph #)?

   NA

7. For publication of patient photos, is a statement included confirming that consent to publish was obtained?

   Where (section, paragraph #)?

   NA

▶ fMRI studies

For papers reporting functional imaging (fMRI) results please ensure that these minimal reporting guidelines are met and that all this information is clearly provided in the methods:

1. Were any subjects scanned but then rejected for the analysis after the data was collected?

   NA

   a. If yes, is the number rejected and reasons for rejection described?

      Where (section, paragraph #)?

      NA

2. Is the number of blocks, trials or experimental units per session and/or subjects specified?

   Where (section, paragraph #)?

   NA

3. Is the length of each trial and interval between trials specified?

   NA

4. Is a blocked, event-related, or mixed design being used? If applicable, please specify the block length or how the event-related or mixed design was optimized.

   NA

5. Is the task design clearly described?

   Where (section, paragraph #)?

   NA

6. How was behavioral performance measured?

   NA

7. Is an ANOVA or factorial design being used?

   NA

8. For data acquisition, is a whole brain scan used?

   If not, state area of acquisition.

   NA

   a. How was this region determined?

      NA

9. Is the field strength (in Tesla) of the MRI system stated?

NA

   a. Is the pulse sequence type (gradient/spin echo, EPI/spiral) stated?

NA

   b. Are the field-of-view, matrix size, slice thickness, and TE/TR/ flip angle clearly stated?

NA

10. Are the software and specific parameters (model/functions, smoothing kernel size if applicable, etc.) used for data processing and pre-processing clearly stated?

NA

11. Is the coordinate space for the anatomical/functional imaging data clearly defined as subject/native space or standardized stereotaxic space, e.g., original Talairach, MNI305, ICBM152, etc? Where (section, paragraph #)?

NA

12. If there was data normalization/standardization to a specific space template, are the type of transformation (linear vs. nonlinear) used and image types being transformed clearly described? Where (section, paragraph #)?

NA

13. How were anatomical locations determined, e.g., via an automated labeling algorithm (AAL), standardized coordinate database (Talairach daemon), probabilistic atlases, etc.?

NA

14. Were any additional regressors (behavioral covariates, motion etc) used?

NA

15. Is the contrast construction clearly defined?

NA

16. Is a mixed/random effects or fixed inference used?

NA

   a. If fixed effects inference used, is this justified?

NA

17. Were repeated measures used (multiple measurements per subject)?

NA

   a. If so, are the method to account for within subject correlation and the assumptions made about variance clearly stated?

NA

18. If the threshold used for inference and visualization in figures varies, is this clearly stated?

NA

19. Are statistical inferences corrected for multiple comparisons?

NA

   a. If not, is this labeled as uncorrected?

NA

20. Are the results based on an ROI (region of interest) analysis?

NA

    a. If so, is the rationale clearly described?

NA

    b. How were the ROI's defined (functional vs anatomical localization)?

NA

21. Is there correction for multiple comparisons within each voxel?

NA

22. For cluster-wise significance, is the cluster-defining threshold and the corrected significance level defined?

NA

▶ Additional comments

Additional Comments

NA