

Bipolar disorder associated microRNA, miR-1908-5p, regulates the expression of genes functioning in neuronal glutamatergic synapses

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Supplementary Figure 1 Conservation of the miR-1908-3p and miR-1908-5p sequences among 100 animal genomes

Supplementary Figure 2 Conservation of the miR-34a-3p and miR-34a-5p sequences among 100 animal genomes

Supplementary Figure 3 The thresholds of context++ scores for miR-1908-3p and miR-1908-5p putative target genes predicted by TargetScan

Supplementary Figure 4 GO analysis of miR-1908-3p and miR-1908-5p target genes

Supplementary Figure 5 Conservation of the first (770-776) and second (803-809) miR-1908-5p binding sites in the *GRM4* 3'UTR among 100 animal genomes

Supplementary Figure 6 Human brain expression of *STX1A* and *CLSTN1*, and their Spearman's correlations with miR-1908-5p

Supplementary Table 1 Summary of statistical analyses for the experiments

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Assay/Measurement	Values (mean±SEM, n)	Statistical test and P values	Figure
Luciferase assay for miR-1908-5p synaptic target genes	<i>DLGAP4</i> , control miR (1±0.03, 6) <i>DLGAP4</i> , miR-1908-5p (0.76±0.03, 6) <i>GRIN1</i> , control miR (1±0.04, 6) <i>GRIN1</i> , miR-1908-5p (0.63±0.02, 6) <i>STX1A</i> , control miR (1±0.04, 6) <i>STX1A</i> , miR-1908-5p (0.78±0.04, 6) <i>CLSTN1</i> , control miR (1±0.05, 6) <i>CLSTN1</i> , miR-1908-5p (0.73±0.04, 6) <i>GRASP</i> , control miR (1±0.04, 6) <i>GRASP</i> , miR-1908-5p (1.14±0.06, 6) <i>GRM4</i> , control miR (1±0.03, 6) <i>GRM4</i> , miR-1908-5p (0.62±0.03, 6)	Unpaired two-tailed Student's t-test, **P<0.01, ***P<0.001	Figure 1d
Luciferase assay for <i>GRM4</i> binding sites	<i>GRM4</i> WT, control miR (1±0.04, 6) <i>GRM4</i> WT, miR-1908-5p (0.76±0.04, 6) <i>GRM4</i> M1, control miR (1±0.02, 6) <i>GRM4</i> M1, miR-1908-5p (0.82±0.03, 6) <i>GRM4</i> M2, control miR (1±0.03, 6) <i>GRM4</i> M2, miR-1908-5p (0.88±0.04, 6) <i>GRM4</i> M1/2, control miR (1±0.06, 6) <i>GRM4</i> M1/2, miR-1908-5p (0.93±0.09, 6)	Unpaired two-tailed Student's t-test, *P<0.05, **P<0.01, ***P<0.001	Figure 1e
qRT-PCR for miR-1908-5p in human NPCs	Control, vehicle (1±0.00, 3) Control, lithium (1.21±0.09, 3) Control, valproate (1.68±0.08, 3) BD, vehicle (1±0.00, 3) BD, lithium (1.00±0.15, 3) BD, valproate (0.43±0.09, 3)	Unpaired two-tailed Student's t-test, *P<0.05	Figure 3b