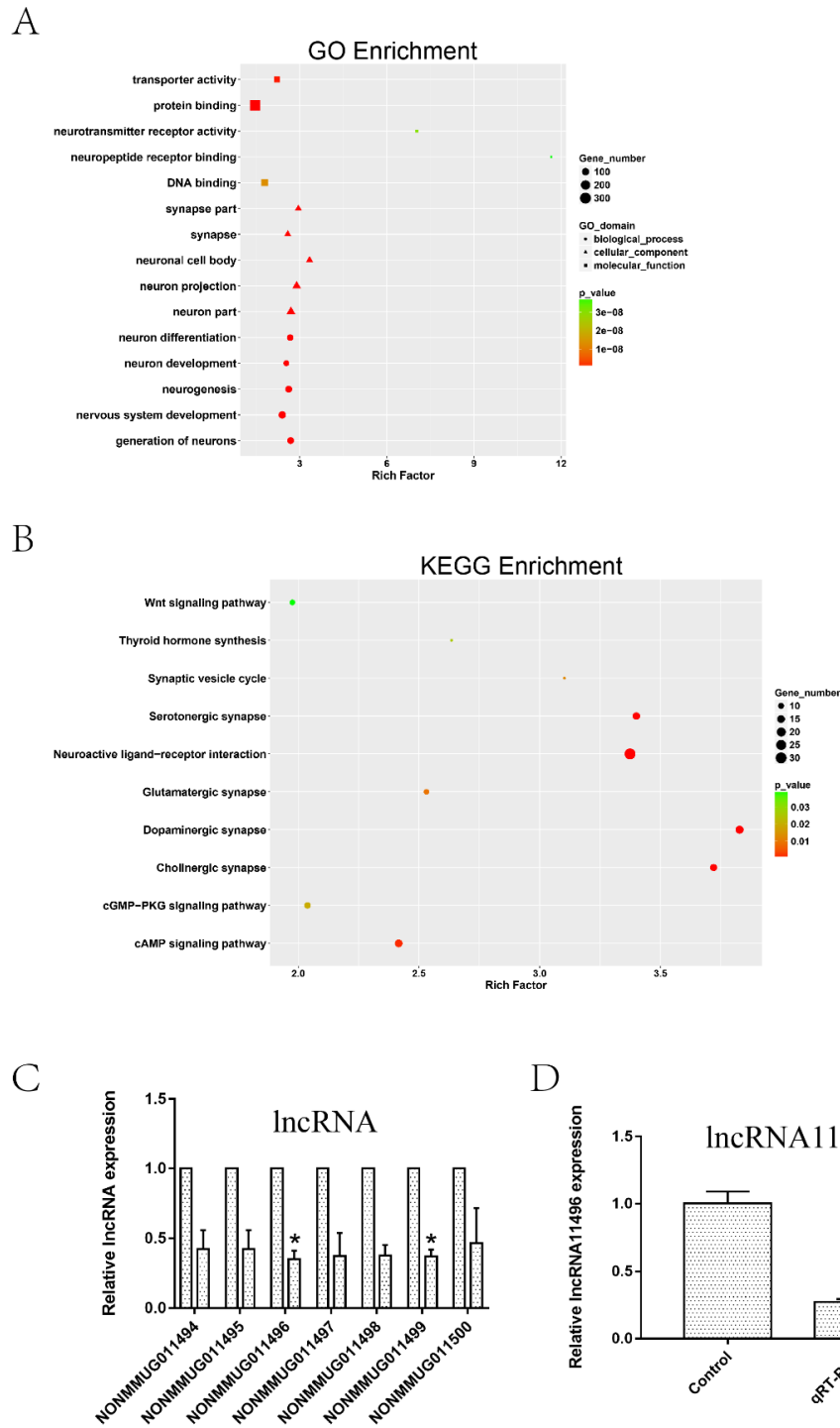


**Table S1. Primer sequences used for qRT-PCR.**

Primers	Forward primers	Reverse primers
lncRNA11496	ACCCAAAGTAAGCCCCGAAAT	ATAAACGAGACAATGAAGGTAGAAC
Mef2c	CTGTCTTGTCTTTGCCCTTGC	GCCATTACGGTCCTCCTACT
GAPDH	GGACACTGAGCAAGAGAGGC	TTATGGGGGTCTGGGATGGA
U6	CAGCACATATACTAAAATTGGAACG	ACGAATTGCGTGTCATCC



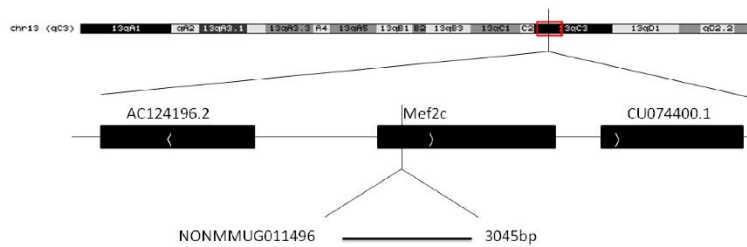
**Fig.S1 KEGG and GO analysis of differentially expressed lncRNAs and mRNAs in the brains of mice infected with *T. gondii* Chinese 1 Wh6 strain and validation of the expression of lncRNA11496.**

(A) GO function enrichment analysis of differentially expressed mRNAs. The x-axis indicates the subcategories, and the y-axis indicates the enrichment scores [ $-\log_{10}(\text{P value})$ ] of the significant enrichment GO terms. (B) KEGG pathways enrichment analysis of

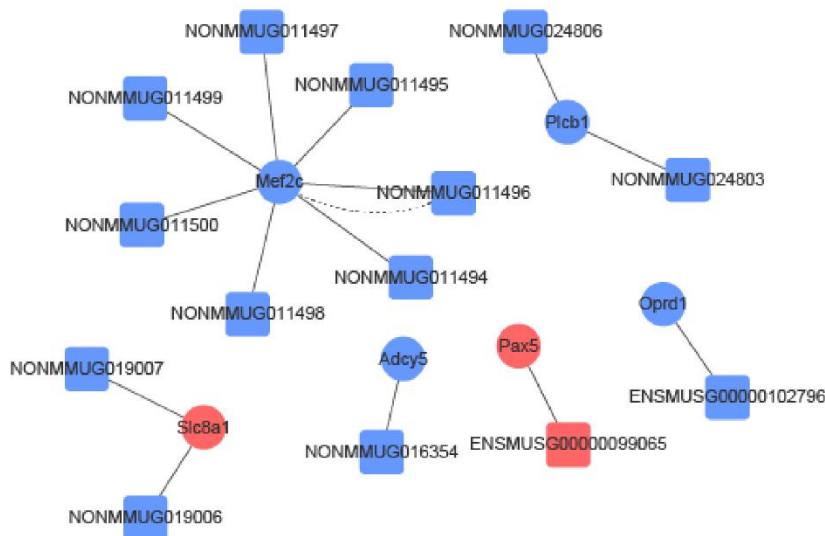
differentially expressed mRNAs. The vertical axis represents the pathway category and the horizontal axis represents the enrichment score  $[-\log_{10} (P \text{ value})]$  of the pathway. (C) Significant differential expression of lncRNAs in Microarray assay. All values are presented as mean  $\pm$  SD for three independent experiments. \* $P < 0.05$ , Student's  $t$ -test.

(D) Validation of lncRNA11496 expression by qRT-PCR. All values are presented as mean  $\pm$  SD for three independent experiments. \*\* $P < 0.01$ , Student's  $t$ -test.

A



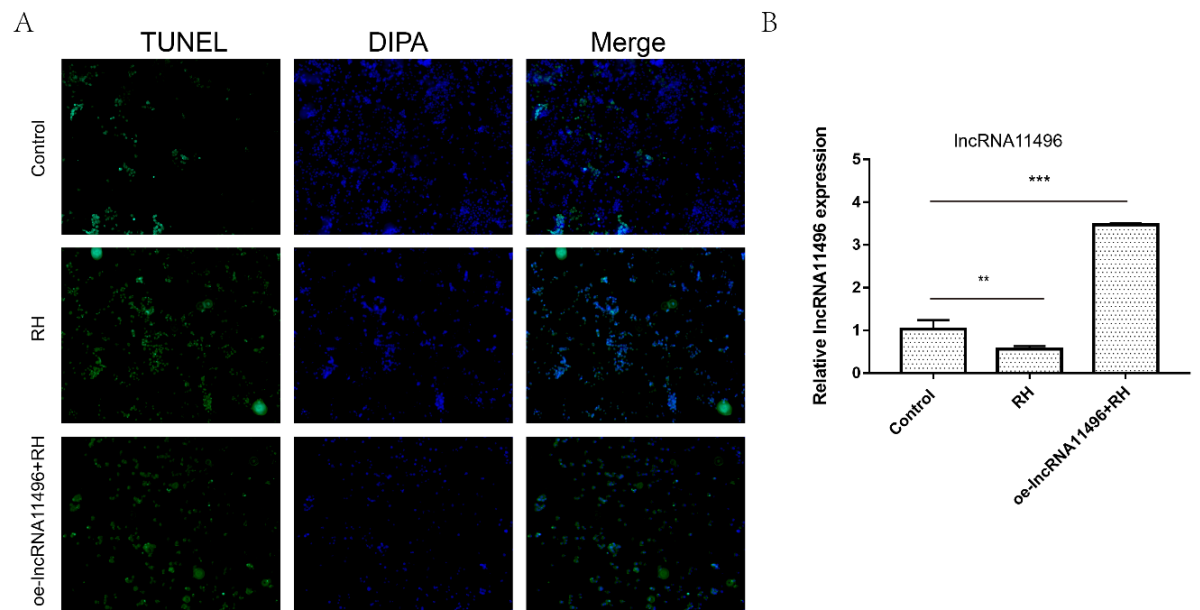
B



**Fig.S2 Prediction of the target gene of lncRNA11496.**

(A) lncRNA11496 was found to be located in the promoter region of Mef2c through the UCSC Genome Browser.

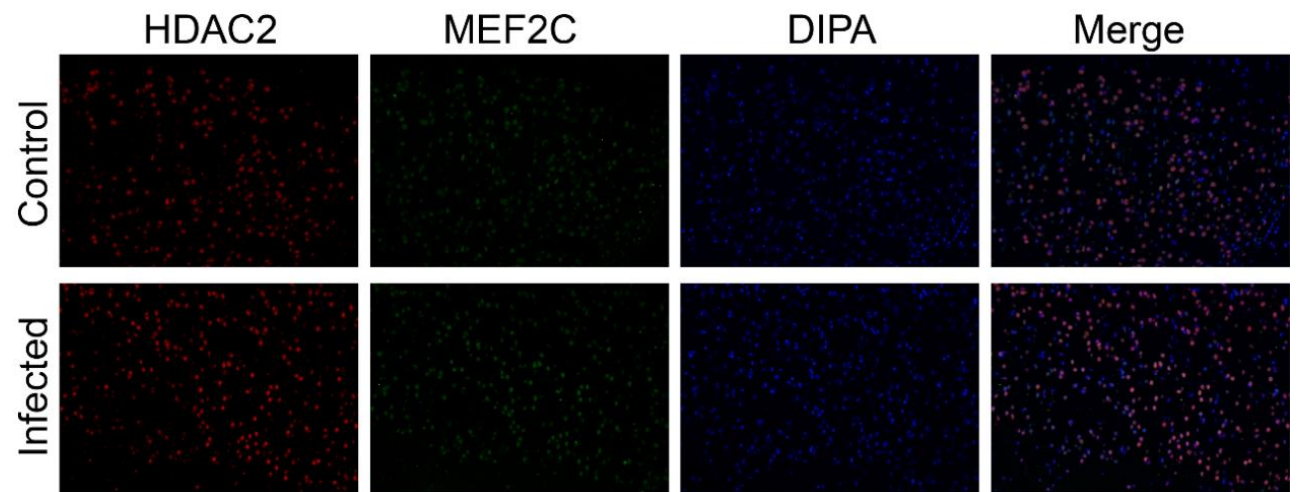
(B) The target gene of lncRNA11496 was predicted as Mef2c by cis/trans analysis.



**Fig.S3 Overexpression of lncRNA11496 in the BV-2 cells transfected with *T. gondii*.**

- (A) Cell apoptosis of BV-2 cell infected with *T. gondii* transfected with oe-lncRNA11496 was analyzed by TUNEL assay. The apoptosis of the cells could be rescued when overexpression of the lncRNA11496.
- (B) Relative expression of lncRNA11496 in uninfected BV-2 cells, infected BV-2 cells and infected BV-2 cells transfected with oe-lncRNA11496 detected by qRT-PCR.

All values are presented as mean  $\pm$  SD for three independent experiments. \*\* $P < 0.01$ , \*\*\* $P < 0.001$ , Student's *t*-test.



**Fig.S4 Fluorescence co-localization analysis of MEF2C and HDAC2 in the *T. gondii* infected mouse brain.** HDAC2 (red) and MEF2C (green) were co-located in the nucleus of the cells in the brain by fluorescence co-localization analysis.