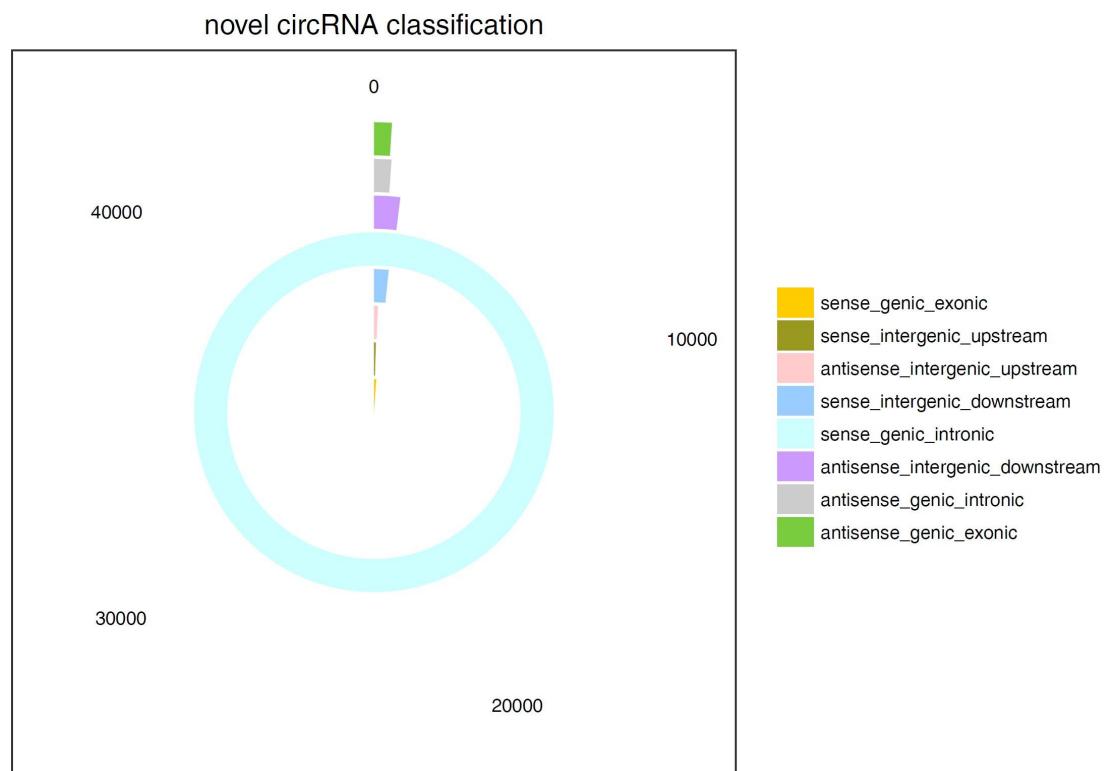
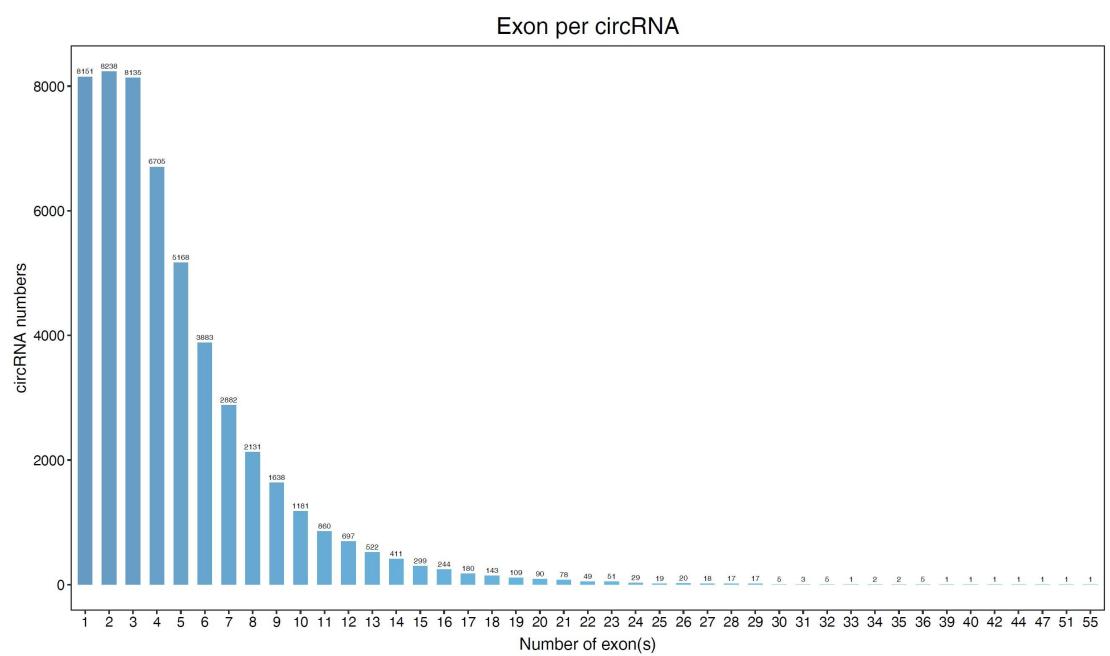


Supplementary files:

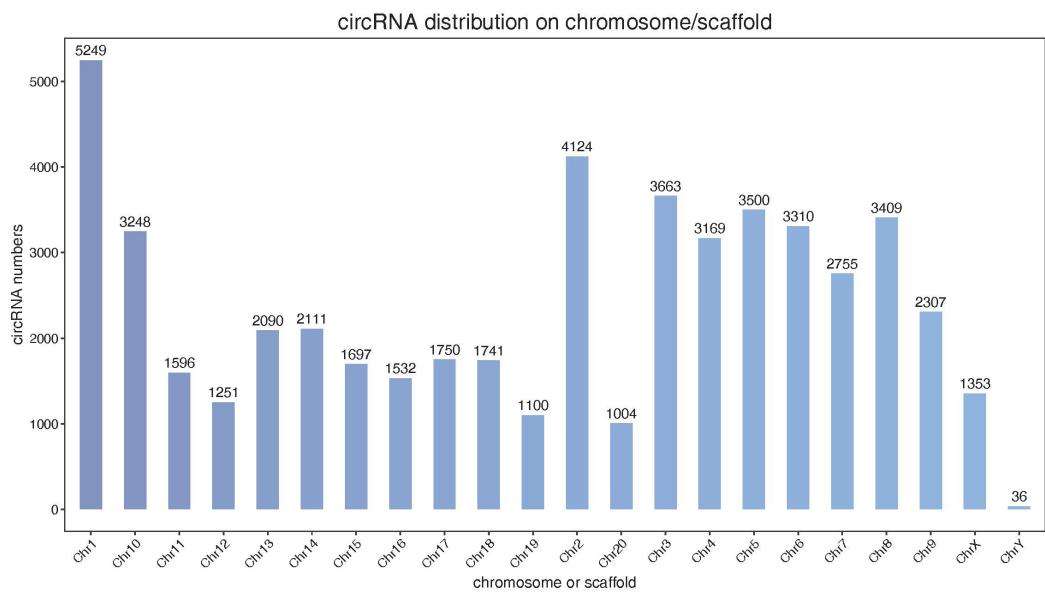


**Figure S1 Classification of circRNAs identified in rat cerebral cortex after TBI.**



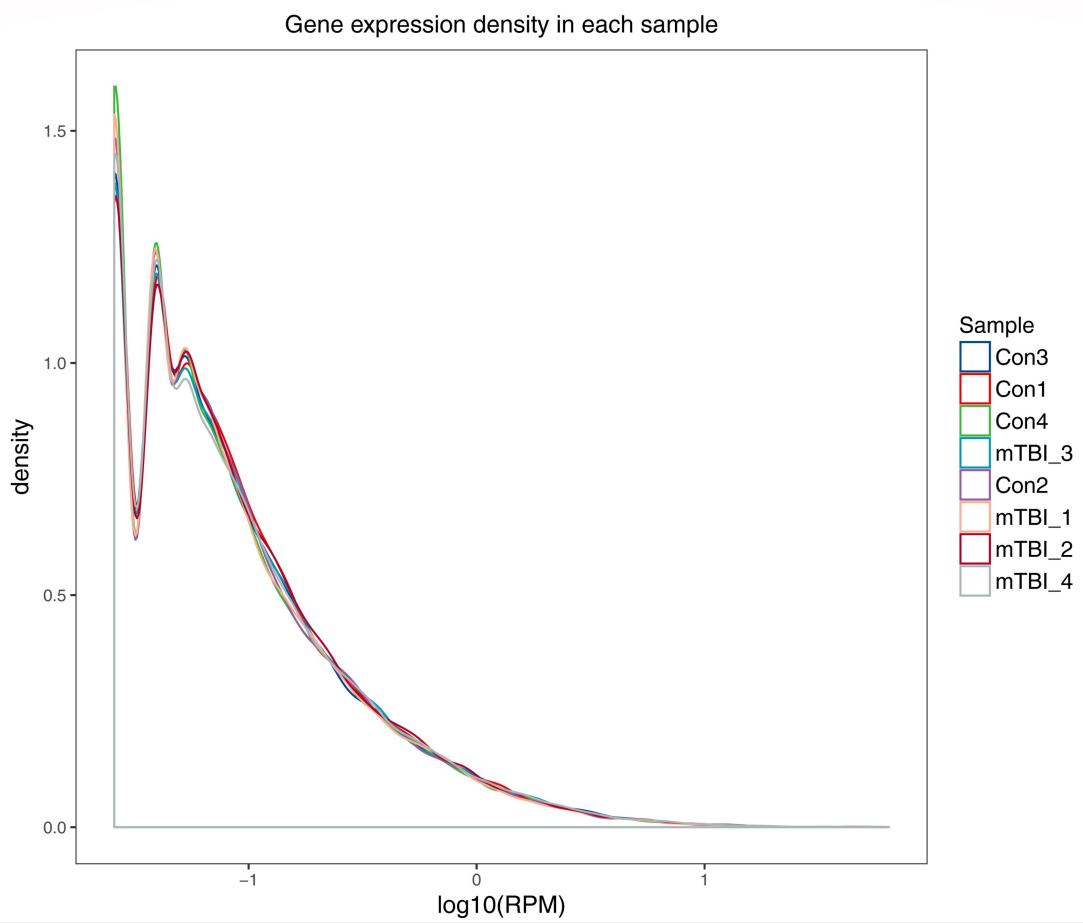
**Figure S2 The exon number distribution of circRNAs.**

Abscissa axis shows the number of exon(s), and the ordinate axis shows the circRNAs numbers.



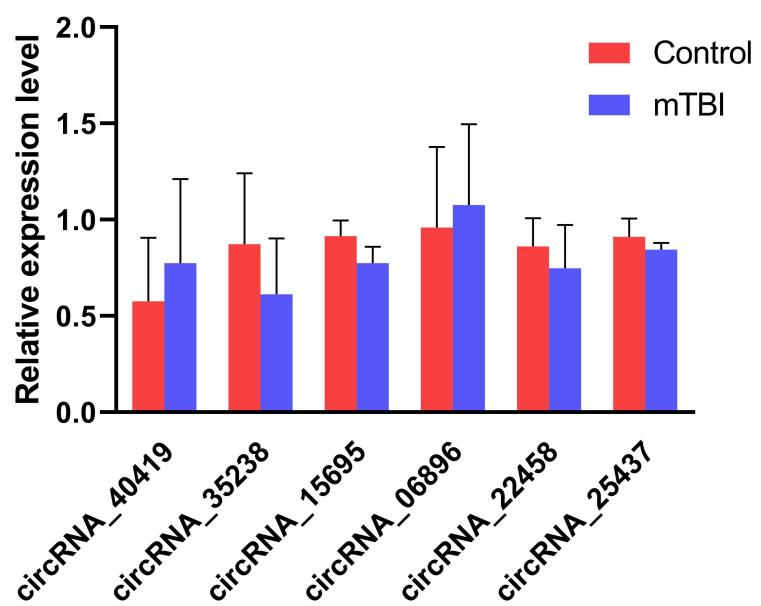
**Figure S3 Distribution of circRNA on chromosome.**

Abscissa axis shows the chromosome number, and the ordinate axis shows the circRNAs numbers.



**Figure S4 Distribution of RPM value.**

Different lines with special color show different samples. Abscissa axis shows the  $\log_{10}(\text{RPM})$  value, and the ordinate axis shows the probability density.



**Figure S5 Expression level analysis on circRNAs by RT-qPCR.**

The expression of circRNA\_40419, circRNA\_35238, circRNA\_15695, circRNA\_06896, circRNA\_22458 and circRNA\_25437 were tested in at least 3 control s and 3 mTBI rat cerebral cortex samples by RT-qPCR.

**Table S3 The primers used in this study**

primer		sequence
circRNA_19958	FP	5' ctccagctacaccaggcaagg 3'
	RP	5' caattgctacatggggatctc 3'
circRNA_26562	FP	5' cacctacatggcagtcaca 3'
	RP	5' tcaggtaatcttgcagcatc 3'
circRNA_17935	FP	5' tccacacattgctgattctatt 3'
	RP	5' tgggcttgggactccaggggagaga 3'
circRNA_15434	FP	5' cttgtgtggcagtgtgagt 3'
	RP	5' cctgggtctgcctttacttt 3'
circRNA_40419	FP	5' atgaagatgacgatgtga 3'
	RP	5' atttcgagaagtagctgac 3'
circRNA_35238	FP	5' gagtatgactatgacgatggta 3'
	RP	5' agtagggagattatggaggaa 3'
circRNA_15695	FP	5' caaggaacaagatgtgga 3'
	RP	5' gtggttcagaacgggtc 3'
circRNA_06896	FP	5' tccgagaataaaaacacagtgg 3'
	RP	5' aggcaaaaaggatcagaagttc 3'
circRNA_22458	FP	5' aaagtcaagggtgggaggaagc 3'
	RP	5' cctgaacgatctccccattg 3'
circRNA_25437	FP	5' gcaaaggtaacatctcagaccca 3'
	RP	5' gcaataaggtgaggaggtag 3'
GAPDH	FP	5' ctcattgaccacagtccatgc 3'
	RP	5' ttcaagctcttggatgacctt 3'