

## Supplemental material

**Supplementary Table 1.** Primer sequences for quantitative real-time PCR

ELISA			
proteins (pg/ml)	Forward Primer (5'----- 3')	Reverse Primer (5'----- 3')	Accession number
<b>IL-1 <math>\beta</math></b>	CCAAAAGATGAAGGGCTGCT	TCATCTGGACAGCCCAGGTC	NM_008361.3
<b>TNF-<math>\alpha</math></b>	GGCAGGTCTACTTGAGTCATTGC	ACATTGAGGCTCCAGTGAA	D84199.2
<b>IFN-<math>\gamma</math></b>	AGCTCATCCGAGTGGTCCAC	GCTTCCTGAGGCTGGATTCC	NM_008337.3
<b>IDO1</b>	ACACTGAGCACGGACGGACT	GTGTGCCAGGCGCTGTAAC	NM_008324.1
<b>IDO2</b>	ACACTGAGCACGGACGGACT	GTGTGCCAGGCGCTGTAAC	NM_145949.2
<b>GAPDH</b>	GGAGGCCACACTGCTGATTAA	CCTGCTTCACCACCTTCTTGAT	GU214026.1

**Abbreviations:** IL; interleukin, TNF; tumor necrosis factor; IFN, interferon, IDO; indoleamine 2, 3 dioxygenase.

**Supplementary Table 2.** Pearson's correlation coefficients for the percentage of sucrose preference or immobility duration or immobility duration and levels of cytokine and Kyn/Trp ratio

	Sucrose preference (r )	Immobility duration (r )
<b>IL-1<math>\beta</math></b>	-0.438 **	0.669 **
<b>TNF-<math>\alpha</math></b>	-0.253	0.595 **
<b>IFN-<math>\gamma</math></b>	-0.748 ***	0.776 ***
<b>IDO1</b>	-0.246	0.551 **
<b>IDO2</b>	-0.280	0.558 **
<b>Plasma Kyn/Trp</b>	-0.322 *	0.576 **
<b>Brain Kyn/Trp</b>	-0.305 *	0.551 **

Each value represents the correlation coefficient (Pearson's r): \*\*\*,  $|r| = 0.70$ , strong correlation; \*\*,  $0.5 < |r| < 0.7$ , moderately strong correlation; and \*,  $|r| = 0.3–0.5$ , weak to moderate correlation.  
The samples from the experiments using Mino (N=6), IFN- $\gamma$ -/- mice (N=5) and 1-MT (N=6) were used to calculate the r value.

### Figure legends

**Supplementary Figure 1.** Body weight (grams) were measured started from 0 day post infection (dpi) to 15 dpi. Data are presented as mean  $\pm$  SD ( $F_{(1, 128)} = 1.86, P=0.033$ ). \*, indicates significant difference between groups analyzed by Two-way ANOVA plus Bonferroni *post hoc* test.

