

SUPPLEMENTARY TABLE I

Cell type	Cell number per spleen, WT	Cell number per spleen, Ast-Tbr2DN
Dendritic cells (CD11b ⁺ /CD11c ⁺ /Gr1 ⁻ /F4/80 ⁻)	39.02 ± 5.96 x10 ⁴	34.39 ± 8.85 x10 ⁴
Macrophages (CD11b ⁺ /F4/80 ⁺ /CD11c ⁻ /Gr1 ⁻)	30.81 ± 5.13 x10 ⁴	30.17 ± 7.45 x10 ⁴
Granulocytes (CD11b ⁺ /Gr1 ⁺ /CD11c ⁻ /F4/80 ⁻)	96.61 ± 24.18 x10 ⁴	104.70 ± 22.57 x10 ⁴
CD4 ⁺ T cells (CD3 ⁺ /CD4 ⁺)	42.38 ± 9.65 x10 ⁵	35.30 ± 7.44 x10 ⁵
CD8 ⁺ T cells (CD3 ⁺ /CD8 ⁺)	25.86 ± 5.87 x10 ⁵	21.34 ± 4.24 x10 ⁵
T regs (CD3 ⁺ /CD4 ⁺ /CD25 ⁺)	22.61 ± 5.04 x10 ⁴	18.55 ± 4.23 x10 ⁴
B cells (CD3 ⁻ /CD19 ⁺)	24.09 ± 5.04 x10 ⁶	20.94 ± 4.10 x10 ⁶

Supplementary Table I. Uninfected wildtype and Ast-Tbr2DN mice show no difference in baseline leukocyte populations. Splenocytes isolated from uninfected wildtype (WT) and Ast-Tbr2DN mice were stained as indicated and then analyzed by flow cytometry. *N* = 6 mice/genotype.

SUPPLEMENTARY TABLE II

II-A. Serum cytokine and chemokine levels at 2 wpi

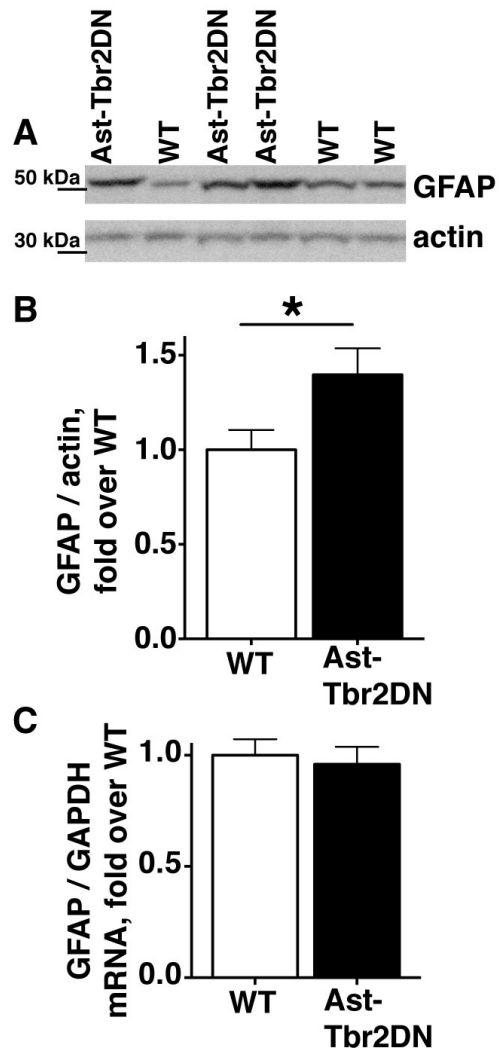
Cytokine or chemokine concentration, (pg/ml serum)	WT	Ast-Tbr2DN
IL-1 α	81.37 \pm 6.70	95.89 \pm 8.33
IL-1 β	20.33 \pm 2.41	17.02 \pm 1.36
IL-2	7.94 \pm 1.10	10.31 \pm 1.50
IL-3	2.87 \pm 0.49	3.41 \pm 1.17
IL-5	61.41 \pm 27.68	39.50 \pm 17.03
IL-12 p40	81.31 \pm 13.00	90.83 \pm 4.69
IL-13	6.01 \pm 1.60	5.64 \pm 1.58
IL-17	11.83 \pm 3.53	9.56 \pm 1.67
IL-23	13.93 \pm 2.45	14.64 \pm 3.94
IFN γ	277.42 \pm 64.93	247.63 \pm 43.24
CCL2	32.02 \pm 2.86	31.27 \pm 4.01
CCL3	6.79 \pm 0.90	12.76 \pm 2.28
CCL7	195.93 \pm 14.21	222.65 \pm 20.55
CCL11	1126.98 \pm 157.53	1300.96 \pm 140.08
CXCL10	8.87 \pm 3.77	9.56 \pm 1.57
G-CSF	18.04 \pm 6.84	5.69 \pm 1.14
GM-CSF	10.41 \pm 2.61	11.12 \pm 2.36
TNF α	33.78 \pm 4.55	43.54 \pm 8.42
VEGF	17.23 \pm 1.06	19.25 \pm 2.08

II-B. Brain cytokine and chemokine levels at 4 wpi

Cytokine or chemokine concentration (pg/mg protein)	WT	Ast-Tbr2DN
IL-1 α	9.98 \pm 1.50	11.69 \pm 2.15
IL-1 β	16.26 \pm 1.52	19.58 \pm 2.91
IL-2	1.29 \pm 0.28	2.27 \pm 0.41
IL-3	0.81 \pm 0.12	0.91 \pm 0.17
IL-4	1.04 \pm 0.14	1.15 \pm 0.10
IL-5	20.90 \pm 2.29	20.97 \pm 2.56
IL-6	3.88 \pm 0.79	6.09 \pm 1.14
IL-10	1.36 \pm 0.27	1.67 \pm 0.10
IL-12 p40	99.15 \pm 8.72	95.58 \pm 19.32
IL-12p70	6.82 \pm 0.49	6.78 \pm 1.12
IL-13	1.17 \pm 0.30	1.21 \pm 0.26
IL-17	5.59 \pm 0.29	5.35 \pm 0.71
IL-23	2.44 \pm 0.20	2.69 \pm 0.22
IFN γ	78.01 \pm 8.02	79.19 \pm 9.51
CCL2	11.43 \pm 1.56	13.31 \pm 2.37
CCL3	9.24 \pm 1.43	9.66 \pm 1.57
CCL5	32.90 \pm 5.89	36.99 \pm 5.07
CCL7	23.05 \pm 5.81	26.52 \pm 5.89
CCL11	9.06 \pm 1.99	6.87 \pm 1.11
CXCL1	3.58 \pm 0.68	3.47 \pm 0.70
CXCL10	39.80 \pm 11.33	34.95 \pm 9.02
G-CSF	0.09 \pm 0.02	0.14 \pm 0.03
GM-CSF	4.16 \pm 0.22	4.00 \pm 0.47
TNF α	1.61 \pm 0.19	1.81 \pm 0.34
TGF β	0.46 \pm 0.05	0.32 \pm 0.04
VEGF	3.89 \pm 0.59	3.74 \pm 0.37

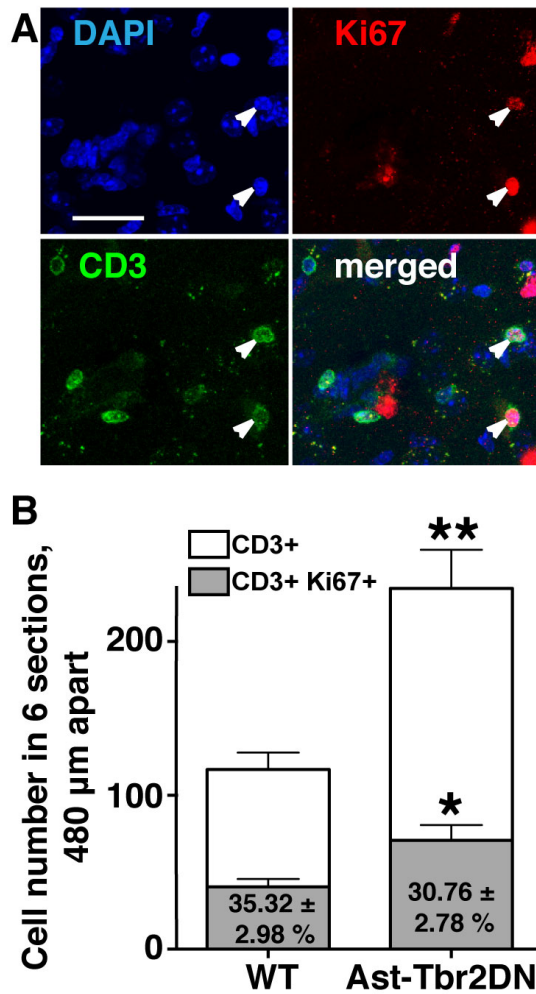
Supplementary Table II. Wildtype and Ast-Tbr2DN mice serum cytokine and chemokine levels at 2 wpi, and brain cytokine and chemokine levels at 4 wpi show no differences. A-B. Samples from wildtype (WT) and Ast-Tbr2DN mice were used to quantify multiple cytokines and chemokines via multiplex assay. N = 6 mice/genotype. For each condition, only those cytokines and chemokines that were detectable are included, levels are mean \pm SEM *II-A*. Serum, 2 wpi. *II-B*. Brain, 4 wpi.

SUPPLEMENTARY FIGURE 1



Supplementary Figure 1. Reduced astrocytic TGF β signaling leads to more GFAP protein, but not mRNA production 2 weeks post oral *Toxoplasma* infection. *A, B.* Representative Western blot images (*A*) and quantification (*B*) of GFAP in the cortex of wildtype controls and Ast-Tbr2DN mice 2wpi. *C.* Quantification of GFAP mRNA levels in Ast-Tbr2DN mice and wildtype controls 2wpi. N = 6 mice per genotype. Bars, mean \pm SEM. * P <0.05, Student's t test.

**SUPPLEMENTARY
FIGURE 2**



Supplementary Figure 2. Reduced astrocytic TGF β signaling does not affect CD3⁺ T cell proliferation during acute *Toxoplasma* infection. *A, B.* Representative images (*A*) and quantification (*B*) of the numbers of CD3⁺ T cells that expressed cell proliferation marker Ki67. The percentage of CD3⁺ cells that are CD3⁺/Ki67⁺ is shown inside the grey bars. N = 5-6 mice per genotype. Bars, mean \pm SEM. **P*<0.05, Student's t test to compare absolute numbers of CD3⁺ cells and of CD3⁺/Ki67⁺ cells between genotypes.