

Figure S1. (a) mRORyt overexpressed vector. (b) pIL-17-luciferase vector. (c) CNS2-

pIL-17-luciferase vector.



Figure S2. EDT affects a Switch from M1 to M2 Phenotype of Microglia in the CNS. MNCs were harvested as described in Fig.5. (a) The expression of CD11b, MHC II, TNF- $\alpha$ , CD206, IL-10 (The positive cells of MHC II, TNF- $\alpha$ , CD206 and IL-10 are

gated from the CD11b positive cells) was measured by flow cytometry. (b-f) Percentages of each molecule were counted. Symbols represent mean  $\pm$  SEM (n = 5 each group). \*\* p < 0.01. Student's t-test. One representative of three independent experiments is shown.



**Figure S3. EDT reduces TNF-** $\alpha$  **expression in BMDCs.** (a) BMDCs were cultured with different concentrations (1-250 µM) of EDT for 18 h. Cell viability was determined by MTS at 490 nm. (b) BMDCs were generated and activated with 100 ng/µl LPS, and supernatants were assayed by ELISA for production of TNF- $\alpha$ . Symbols represent mean ± SEM (n = 3 each group). \*p < 0.05, \*\* p < 0.01, \*\*\*\* p < 0.0001. Student's t-test. One representative of three independent experiments is shown.



Figure S4. EDT Effectively Enhanced Clinical Recovery from EAE. Female, 8–10 weeks-old C57BL/6 mice were immunized with MOG<sub>35–55</sub> and treated with vehicle or EDT (40 mg/kg/day) daily starting at day 9 p.i. (disease onset), indicated by the arrow. Disease was scored daily on a 0–5 scale. Symbols represent mean  $\pm$  SEM (n = 5 each group) \* p < 0.05, determined by two-way ANOVA. One representative of three independent experiments is shown.



Figure S5. EDT administration ameliorates clinical symptoms in passive EAE. To investigate the effect of EDT treatment on the animals after transfer of untreated cells, Vehicle or EDT (40 mg/kg/day) was administrated daily starting on day 0 posttransfer. The mean clinical score a of adoptive transfer EAE were recorded daily. Symbols represent mean  $\pm$  SEM (n = 5 each group) \* p < 0.05, determined by twoway ANOVA. One representative of three independent experiments is shown.

## Table 1

Gene	Primers
GAPDH F	CCAATGTGTCCGTCGTGGATCT
GAPDH R	GTTGAAGTCGCAGGAGACAACC
IL-17a RT F	TTTAACTCCCTTGGCGCAAAA
IL-17a RT R	CTTTCCCTCCGCATTGACAC
IL-17f RT F	TGCTACTGTTGATGTTGGGAC
IL-17f RT R	AATGCCCTGGTTTTGGTTGAA
IFN-γ RT F	ATGAACGCTACACACTGCATC
IFN-γ RT R	CCATCCTTTTGCCAGTTCCTC
GM-CSF RT F	GTGGTCTACAGCCTCTCAGCA
GM-CSF RT R	GCATGTCATCCAGGAGGTTC
IL-6 RT F	ACACATGTTCTCTGGGAAATCGT
IL-6 RT R	AAGTGCATCATCGTTGTTCATACA

Primers used for real-time quantitative PCR analysis

IL-12p35 RT F	CATCGATGAGCTGATGCAGT
IL-12p35 RT R	CAGATAGCCCATCACCCTGT
IL-23p19 RT F	AGGTCACACTGGACCAAAGG
IL-23p19 RT R	GGCACTAAGGGCTCAGTCAG
IL-1β RT F	CTCTCCACCTCAATGGACAGA
IL-1β RT R	TGCTTGGGATCCACACTCTC
TNF-α RT F	GACGTGGAACTGGCAGAAGAG
TNF-α RT R	GCCACAAGCAGGAATGAGAAG
RORyt RT F	CATCTCTGCAAGACTCATCG
RORyt RT R	CAGGGGATTCAACATCAGTG
STAT3 RT F	TGTGACACCATTCATTGATGCAG
STAT3 RT R	ACACTCCGAGGTCAGATCCA

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