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**Supplementary Figure 1.** 1H10 treatment reduces EAE-induced astrogliosis in the white matter of spinal cord. **(A)** Representative astrogliosis in spinal cord of sham-operated and MOG35-55-immunized mice (either vehicle or 1H10) at day 21 as shown by immunofluorescence for GFAP (green). Scale bar, 50 µm. **(B)** Quantification of immunofluorescence intensity of GFAPas determined in the same spinal cord region (mean ± SEM; n=4 per group). \**p* < 0.05 vs. vehicle-treated EAE mice; #*p* < 0.05 vs. sham-operated mice (Kruskal–Wallis test followed by Bonferroni post-hoc test: Chi square=11.514, df=3, p=0.009).

**Supplementary Movie 1.** Behaviors of vehicle-treated control group mice.

**Supplementary Movie 2.** Behaviors of 1H10-treated control group mice.

**Supplementary Movie 3.** Behaviors of vehicle-treated EAE mice.

**Supplementary Movie 4.** Behaviors of 1H10-treated EAE mice.