

1 **Supplementary figure legends**

2 **Fig. S1 Pre-treatment of GA failed to relieve demyelination in the cuprizone-induced**

3 **demyelinated model.** 6 week-old male C57BL/6 mice were fed with normal chow for 2

4 weeks, and then with cuprizone for 6 weeks, treated with GA (50 mg/kg) or PBS every

5 day (Mice with 8 weeks normal chow as control). Body weights (a) of mice were

6 recorded every week. (b) LFB and FluoroMyelin stains of the corpus callosum. (c, d)

7 Quantitative analysis of myelinated and fluoromyelinated areas measured at random areas

8 in the white matter of spinal cords using Image Pro. Data are mean \pm SD (n = 5 each

9 group). Scale bar = 100 μ m in (b).

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11 **Fig. S2 GSK-3 β expression during OPC maturation under GA and/or AR-A014418**

12 **treatment** (a) Primary OPCs isolated from brain of newborn C57BL/6 mice (postnatal

13 day 3) were treated with/without GA (10 μ M) or AR-A014418 (20 μ M) in OPC

14 differentiation medium for 48 h, then probed for western blot of total GSK-3 β , phospho-

15 GSK-3 β , and β -actin. (b, c) Densitometry was determined by Image J and data were

16 analyzed by Graphpad Prism 6. Data are mean \pm SD (n = 3 each group) and by

17 nonparametric test. *p < 0.05. **p < 0.01, ***p < 0.001.

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19 **Fig. S3** Schematic diagram of the measured area of spinal cord white matter.

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