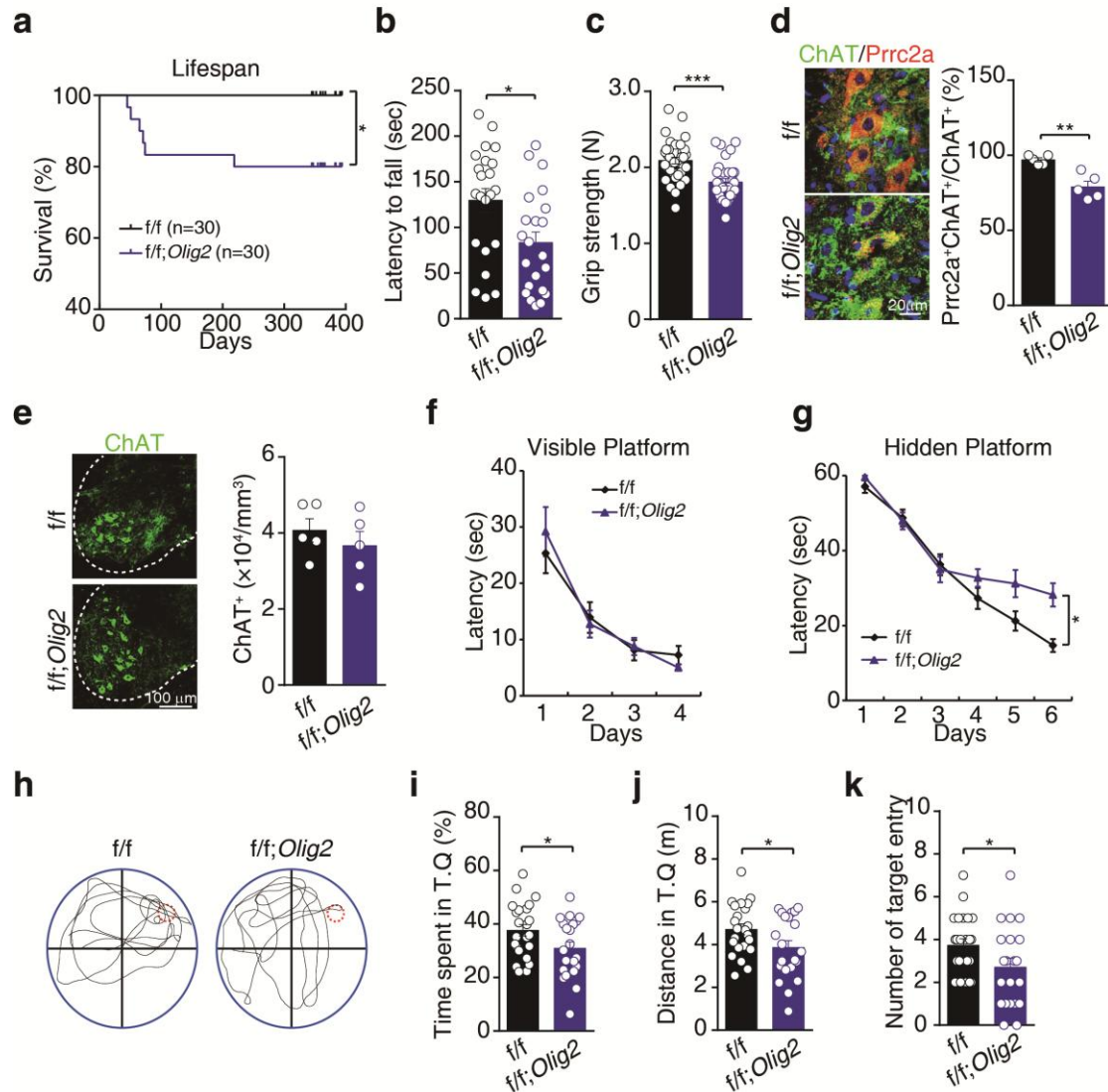


Figure S6



Supplementary Figure 6, related to Figure 6. Prrc2a deletion in the oligodendroglial lineage leads to locomotive and cognitive defects.

(a) Kaplan-Meier survival curves. Statistical significance was determined by the log rank test ($P=0.0105$, $n=30$ each group).

(b) The latency of 4-month-old mice with indicated genotypes on the Rota-Rod (two-tailed unpaired Student's *t*-test, $*P<0.05$, $n=24$ per group).

(c) Grip strength analysis of 4-month-old mice with indicated genotypes (two-tailed unpaired Student's *t*-test, $***P<0.001$, f/f , $n=36$, $f/f; Olig2$ $n=31$).

(d) *Prrc2a* co-immunostained with motor neuron marker ChAT in spinal cord from 4-week-old *Prrc2a^{ff}*; *Olig2^{Cre+/-}* and control mice. The percentage of *Prrc2a* expression in ChAT positive neuron was shown in the right bar graph (two-tailed unpaired Student's *t*-test, ***P*<0.01, n=5 per group).

(e) The representative ChAT immunohistochemistry staining pictures (left) and the quantification of motor neurons (right) from spinal cords of 4-month-old *Prrc2a^{ff}* and *Prrc2a^{ff}*; *Olig2^{Cre+/-}* mice (two-tailed unpaired Student's *t*-test, *P*=0.4304, n=5 per group).

(f) The mean escape latency ($\pm$ SEM) for mice to reach the platform in the visible version of the water maze is plotted against the day of the experiment. (*P*=0.9052, *F*=0.01434; Two-way ANOVA followed by Bonferroni test. *f/f* n=23, *f/f*; *Olig2* n=21).

(g) The mean escape latency ($\pm$ SEM) for mice to reach the platform in the hidden version of the water maze is plotted against the day of the experiment (*P*=0.0137, *F*=6.643; Two-way ANOVA followed by Bonferroni test. *f/f* n=23, *f/f*; *Olig2* n=21).

(h) Probe trial was performed 24 hours after the last training session by removing the platform. Probe represents vertical view of the tracks of indicated genotype mice.

(i) Time spent in the target quadrant during probe trial (two-tailed unpaired Student's *t*-test, **P*<0.05, *f/f* n=23, *f/f*; *Olig2* n=21).

(j) Traveled distance in the target quadrant during probe trial (two-tailed unpaired Student's *t*-test, **P*<0.05, *f/f* n=23, *f/f*; *Olig2* n=21).

(k) The number of platform crossing from the same group of mice tested in the probe trial (two-tailed unpaired Student's *t*-test, **P*<0.05, *f/f* n=23, *f/f*; *Olig2* n=21).

The water maze behavior was tested in 6 month-old mice.