Neuroscience Bulletin

Electronic Supplementary Materials

Myt1L Promotes Differentiation of Oligodendrocyte Precursor Cells and is Necessary for Remyelination after Lysolecithin-Induced Demyelination

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Table S1. Primers for Olig1, PLP and MBP used in ChIP assay

	Olig1	PLP	MBP
1F	TGCTGCTACCCTATCGGACA	GAACTGCATGAAGCACA	ACATTACTGCACTGTGACATCC
1R	TAGTGAAAGCTAGCGTCCCT (43-172 bp)	CTGGGCTTCTGCAATTCCT (183-326 bp)	AGCCATAGACTGGACTCACGAA (228-329 bp)
2F	GAAGAGACAACTGTAACCCCAA	TACTAGAACTGCATGAAGCACACC	TACTACCCATGAGCCCGCCAT
2R	TACAAAACTTCCCAGCAGTCTCG(319-468 bp)	ACAGCCTTCATAGTTGCAGTC (178-284 bp)	AGCCATAGTGATGAACAAGACCT (485-706 bp)
3F	CATTTTGTTCTCCGAGACTGC	TGTAAATAGTCCCAGAGATGCTCC	CCCCAGTAGAATGTAAGTTTCGT
3R	TGTCTTATGTTTCCCGAGCTCA (433-566 bp)	GGAATCAAGCAGCCAATAGCC (821-932 bp)	CTCTATCTACCCACTGTCGGTT (647-767 bp)
4F	TCGGGAAACATAAGACATCACT	AGCTGCACTTTCGTAACAGG	CGGACAAAATATTATAGGAAAGTGTGA
4R	AACCACTCAGTTCTAGCCT (549-634 bp)	TATACCAGACTAAGGCCATGACT (1018-1120 bp)	AGCACATGGAAAATGCAAT (1048-1207 bp)
5F	CTGCTGCTTATATGAGATTCCC	AGACTTAGCTGCTTGTTTTATCGT	ATTGCATTTTCCATGTGCTCGGTA

5R	TCTTCCCAGATATGTCCGTTT (911-1025 bp)	TCTTGCCCTGGAAACACAATAGGGA (1407-1511bp)	TGAGCATTCCTCTCTCCCGGAT (1188-1342 bp)
6F	TGCTGCTTATATGAGATTCCC		AATGCCCTGAATAAGCAGTTCCC
6R	TTCTCTGCCTTGGTAACCT (912-987 bp)		ACAAGCCCCAGATGTGAAGCC (1276-1454 bp)
7F	CTTCCTCCCCTAGTTACTAAGACA		GGCTCTCAGGTCATCGCTCT
7R	TTCACAGAATTTTGCAACGGAT (1327-1469 bp)		TCAACCAAAGGGAGCTAACCCGTA (1558-1668 bp)
8F	GCTGGATCACATTTTACATGGAC		AGCCACGTATACCAAGCAAGCTC
8R	CAACACGGTTCCTTCGAG (1632-1759 bp)		AGCCTCGTAGCACTTTGAATAGCC (1619-1692 bp)

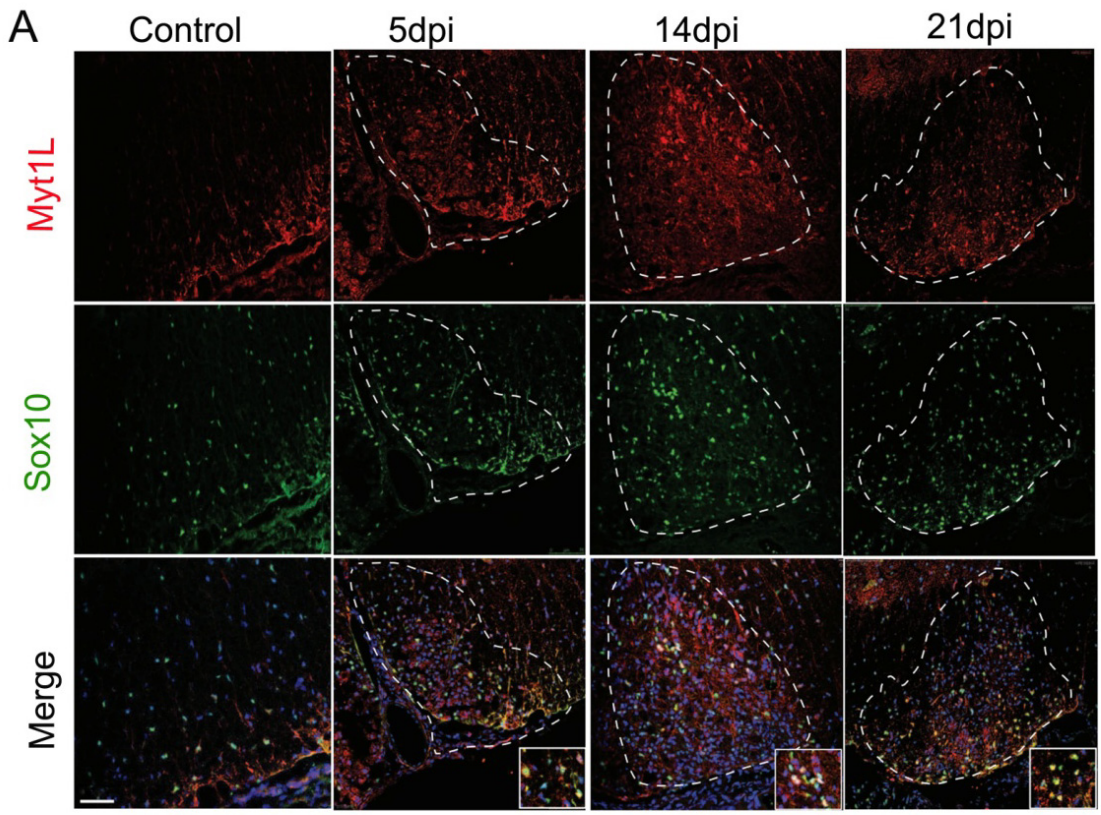

Fig. S1. (A) Representative images demonstrating expression of Myt1l (red) by $Sox10^{+}$ oligodendrocyte lineage cells (green) in normal white matter (Control) and at 5, 14, and 21 dpi. Dashed lines delimitate the lesion area. Scale bar, 75 μm. Images captured by confocal microscopy (Sp5 Leica, Wetzlar, Germany).

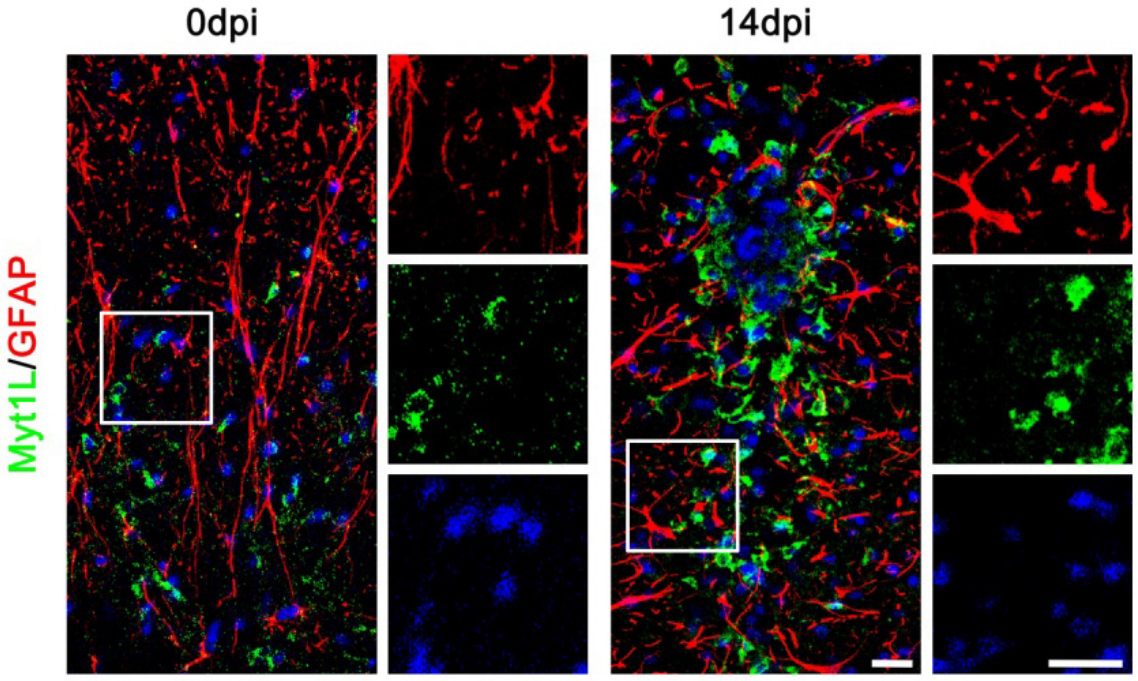

Fig. S2. Expression of Myt1L (green) in GFAP^{+} astrocytes (red) in the dorsal spinal cord of mice at 0 and 14 dpi detected by immunofluorescence staining. Scale bars, 20 μm.

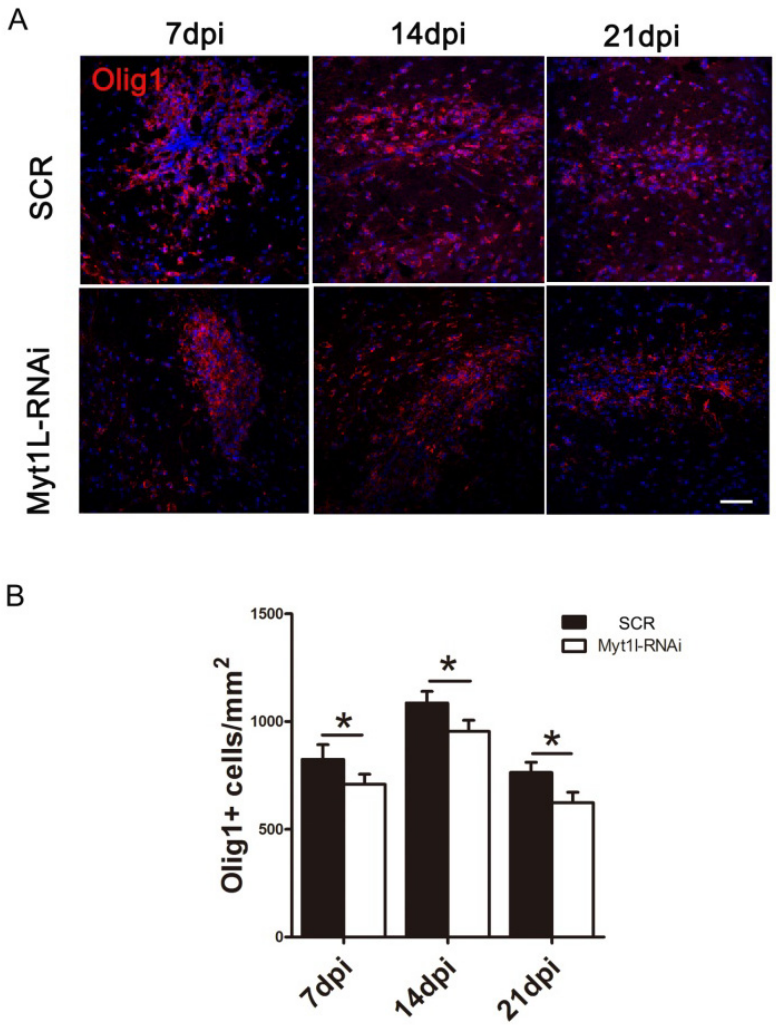

Fig. S3. (A) Representative immunohistofluorescence staining showing Olig1 (red) expression at various time points in different groups in the demyelinating area of the spinal cord. (B) Quantification of $Olig1^+$ cells in the demyelinating area as in A. *$P <$ 0.05, one-way ANOVA with Tukey's *post hoc* test; $n = 5$/group; scale bar, 20 μm.

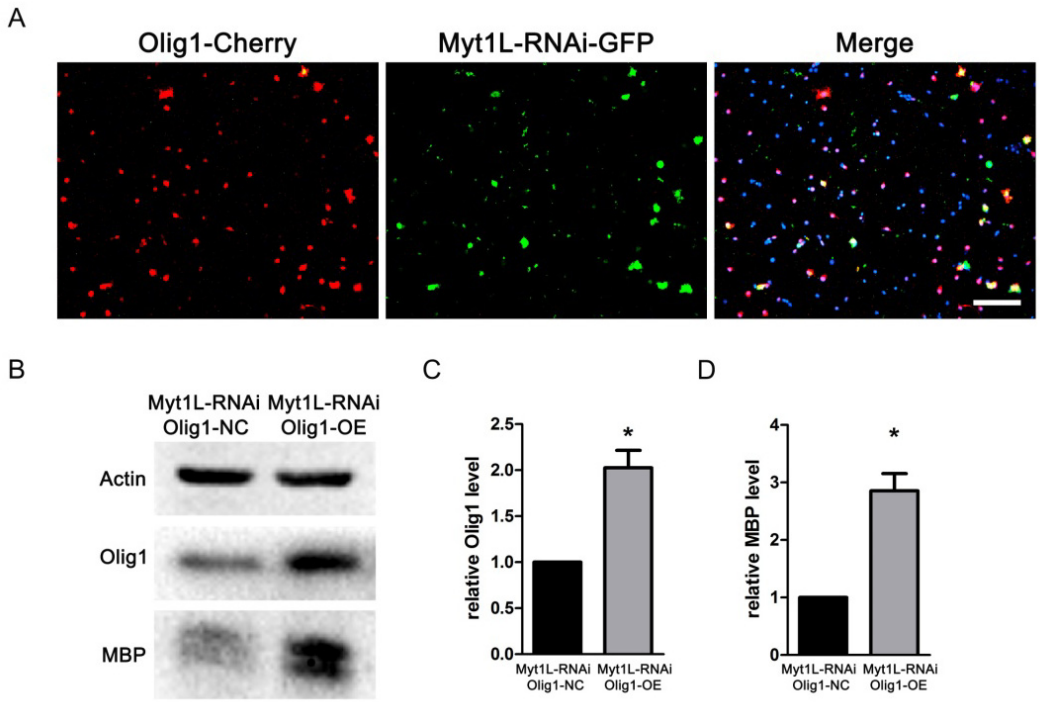

Fig. S4. (A) Representative images showing the infection efficiency of Olig1-OE (cherry) and Myt1L-RNAi (GFP) virus-transfection in OPCs. (B–D) Western blots and analysis of Olig1 and MBP protein levels. **P* <0.05, Student's *t*-test; scale bar, 100 μm.