Supplementary Figures

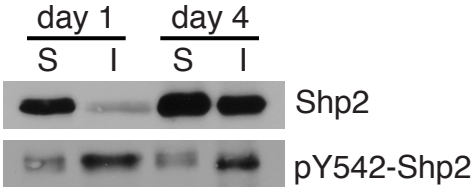
Supplementary Figure S1. The fraction of Shp2 that is found in Triton-X-100 soluble versus insoluble protein pools changes during oligodendrocyte differentiation. (A) Oligodendrocyte progenitors were differentiated for 1 or 4 days, followed by lysis in ice-cold Triton-X-100 (TX100). TX100-insoluble (I) and TX100-soluble (S) proteins were separated by centrifugation and evaluated by Western Blot to determine relative fractions of Shp2 and phosphorylated Shp2 (pY542) in each pool. 10 micrograms of protein lysate was loaded in each lane. (B) Densitometry to determine relative percentages of Shp2 in TX100-soluble (S) and TX100-insoluble (I) protein pools. Bars represent the mean percentage (±sem) from 3 independent experiments (*$p<0.05$; **$p<0.01$). (C) Densitometry to determine percentages of phosphorylated (pY542) Shp2 (relative to total Shp2 levels) in TX100-soluble (S) and TX100-insoluble (I) protein pools. Bars represent the mean percentage (±sem) from 3 independent experiments (**$p<0.01$; n.s., not significant). (D) Representative images depicting Shp2 immunoreactivity (red) in oligodendrocytes colabeled with MBP antibodies (green) to indicate mature oligodendrocytes and DAPI (blue) to indicate nuclei (scale bars = 50 microns).

Supplementary Figure S2. NSC-87877 effectively blocks FGF-induced Shp2 phosphorylation. Oligodendrocyte progenitors were stimulated for 30 minutes with FGF after 30 minute pre-incubation with 0, 5, 10, or 20 μM inhibitor. Cell

lysates were analyzed by Western blot to determine relative levels of phosphorylated Shp2 (pY542) and Shp2.

Supplementary Figure S3. NSC-87877 reduces laminin-mediated increases in myelin membrane area. (A) Oligodendrocytes differentiated on laminin (Lm) for 4 days in the presence or absence of Shp1/2 inhibitor or vehicle control were evaluated by MBP immunocytochemistry to determine the mean (± sem) change in area of myelin membrane coverage per cell (relative to mean area of cells on PDL). (B) Representative micrographs of MBP immunocytochemistry (green) and DAPI nuclear stain (blue) are shown. Scale bars equal 50 microns.

A



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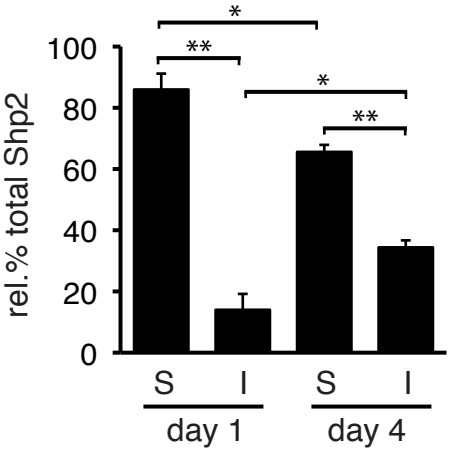

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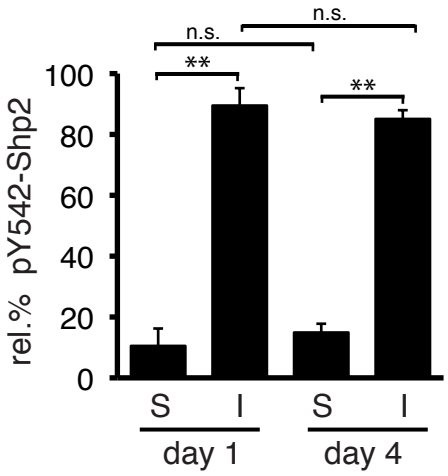

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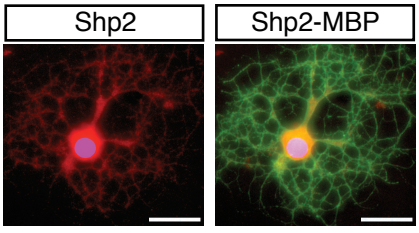

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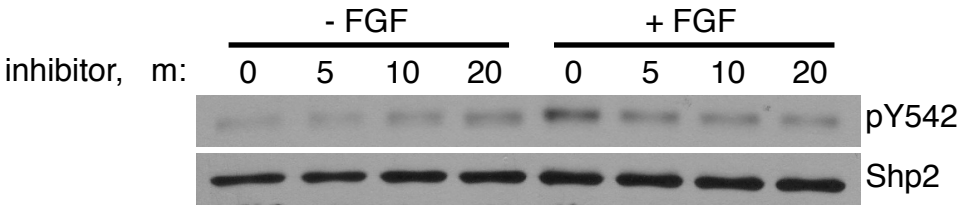

Kuo et al, Supplementary Figure S2

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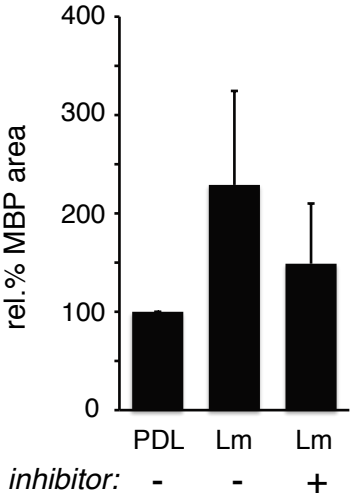

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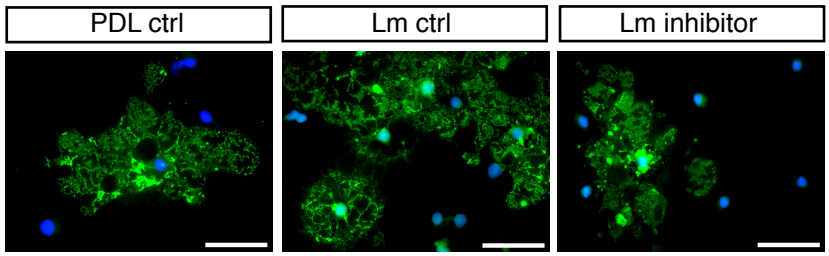

Kuo et al, Supplementary Figure S3