Supplementary figures

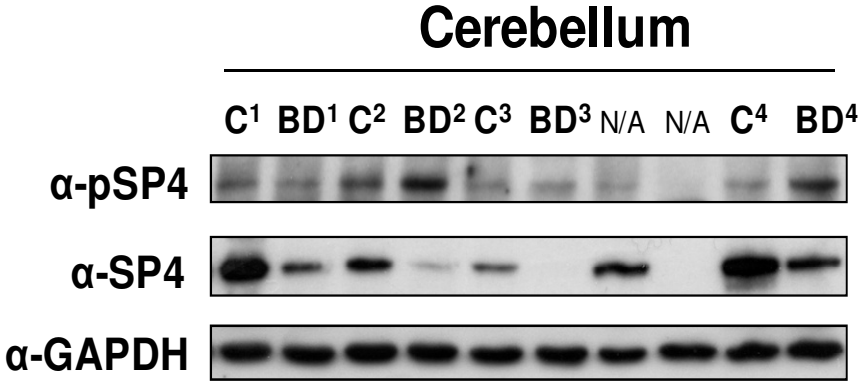

Figure S1. Increased phospho-SP4 S770 in the postmortem cerebellum of bipolar disorder patients. Levels of phospho-SP4 S770, total SP4, and GAPDH were determined in protein extracts from cerebellar postmortem tissue of control (n=10) and bipolar disorder (n=10) individuals. Same representative immunoblots as in Figure 2, but not cropped, are shown for phospho-SP4 S770 (pSP4), SP4, and GAPDH from four control individuals (C^1-C^4) and four BD subjects (BD^1-BD^4). Individuals marked as N/A are not included in this study.

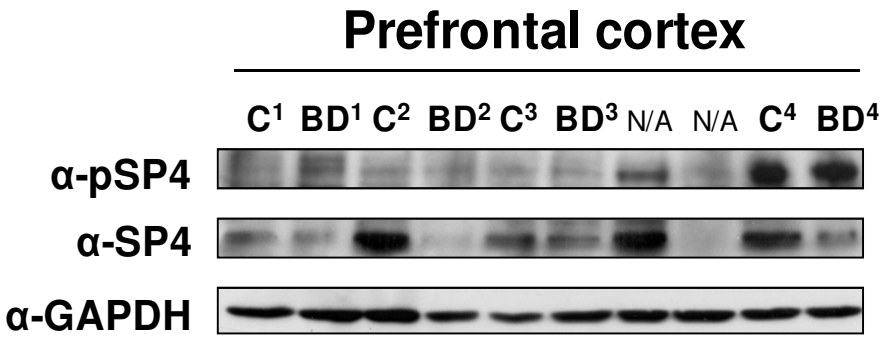

Figure S2. Phospho-SP4 S770 is not differentially expressed in the postmortem prefrontal cortex of bipolar disorder patients. Levels of phospho-SP4 S770, total SP4, and GAPDH were determined in protein extracts from prefrontal cortex postmortem tissue of control (n=10) and bipolar disorder (n=10) individuals. Image shows the same representative immunoblots for phospho-SP4 S770 (pSP4), SP4, and GAPDH from the four control individuals (C^1-C^4) and four BD subjects (BD^1-BD^4) shown in Figure 3 but not cropped. Individuals marked as N/A are not included in this study.

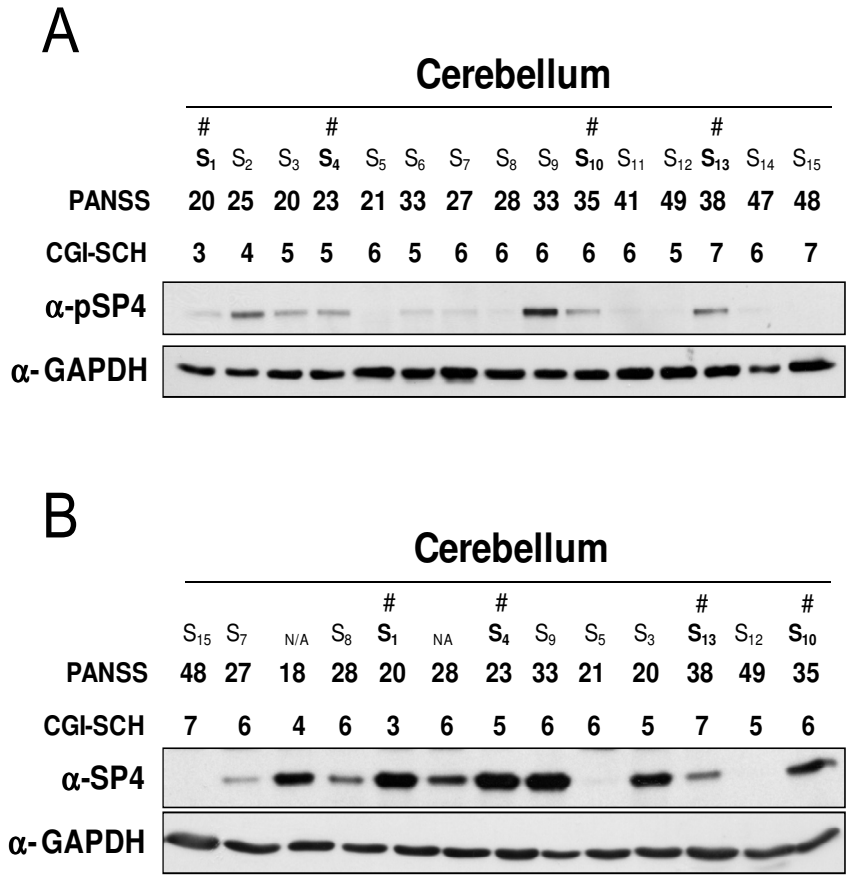

Figure S3. Phospho-SP4 S770 levels relative to total SP4 protein levels in the postmortem cerebellum of schizophrenia patients associate with negative symptom severity. Protein extracts from cerebellum of subjects with schizophrenia (n=15) were analyzed by immunoblotting for pSP4 and GAPDH and pSP4/SP4 ratio was computed by referring pSP4 to previously reported SP4 protein levels from the same samples (Pinacho et al., 2013). Images show representative immunoblots for phospho-SP4 S770 (pSP4) and GAPDH (n=15) **(A)** and for SP4 and GAPDH (n=13) **(B)** from the SZ cohort and their score for negative symptoms measured by the Positive and Negative Syndrome Scale (PANSS) and the Clinical Global Impression-Schizophrenia scale (CGI-SCH). The order of the samples differs in each blot. Subjects shown in Figure 4 (#: S_1, S_4, S_{10} and S_{13}) are indicated in bold. Individuals marked as N/A are not included in this study.

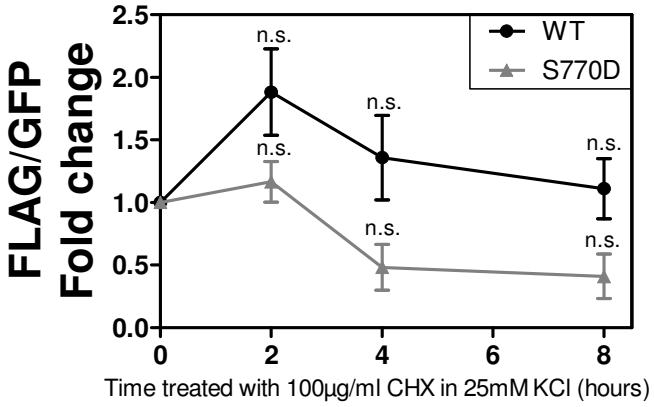

Figure S4. Stability of full-length Sp4 WT and S770D point mutant. Cerebellar granule neurons transfected at DIV0 with full-length FLAG-Sp4 wild-type or S770D were treated at DIV4 with fresh media containing 25mM KCl and 100ug/mL cycloheximide for the indicated times and FLAG-Sp4 was analyzed by Western blot. FLAG-Sp4 was quantified relative to co-transfected GFP in 4 independent experiments. Statistical analysis was performed using ANOVA (WT: $F=2.11$, df=3-12, $p=0.1528$; S770D: $F=6.13$, df=3-12, $p= 0.0091$) and Bonferroni post-hoc test comparing each time point to time point zero (n.s., not significant: $p>0.05$).