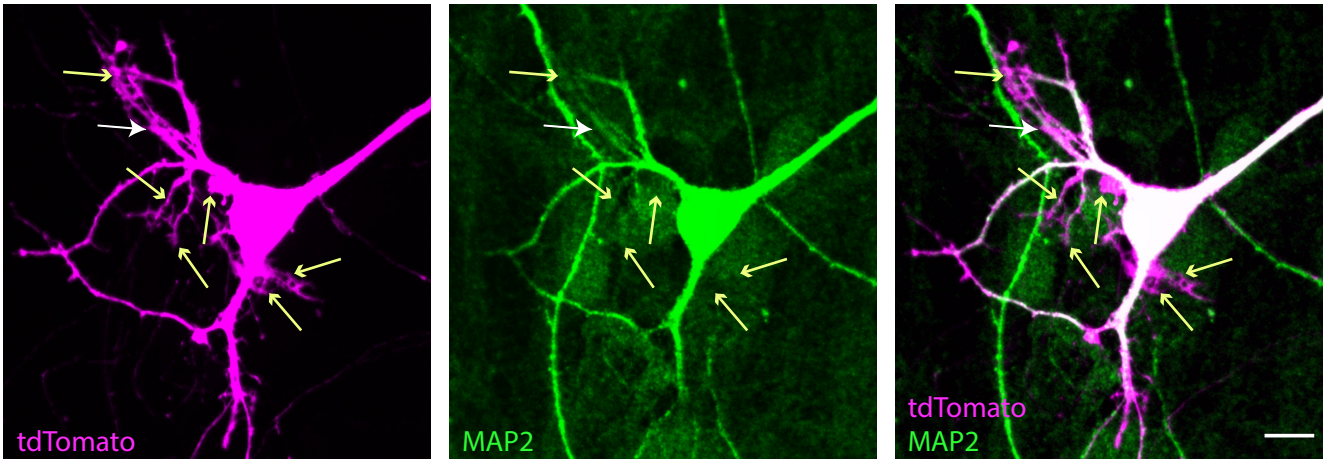

Figure S1. Abnormal structures of dysmorphic GluN2B^{724t} neurons only partially contain MAP2. Representative images of abnormal structures emanating from the soma and proximal dendrites of a dysmorphic neuron that expresses GFP-GluN2B^{724t}. Neurons were cotransfected with tdTomato (magenta) and immunolabeled with antibodies to MAP2 (green), a dendrite-specific marker. Co-localization of tdTomato and MAP2 is indicated by white in the overlay (right panel). This example of a dysmorphic neuron had a hairy mass emanating from its upper left side and additional abnormal structures protruding from the soma. The base of the hairy mass expressed some MAP2 (white arrow), while the distal portions of these structures and other filopodial and lamellipodial-like protrusions did not express MAP2 (yellow arrows). Longer, thick structures that resembled short dendrites did express MAP2. MAP2-positive dendrites that do not express tdTomato are from neighboring untransfected neurons. Scale bar, 10μm.

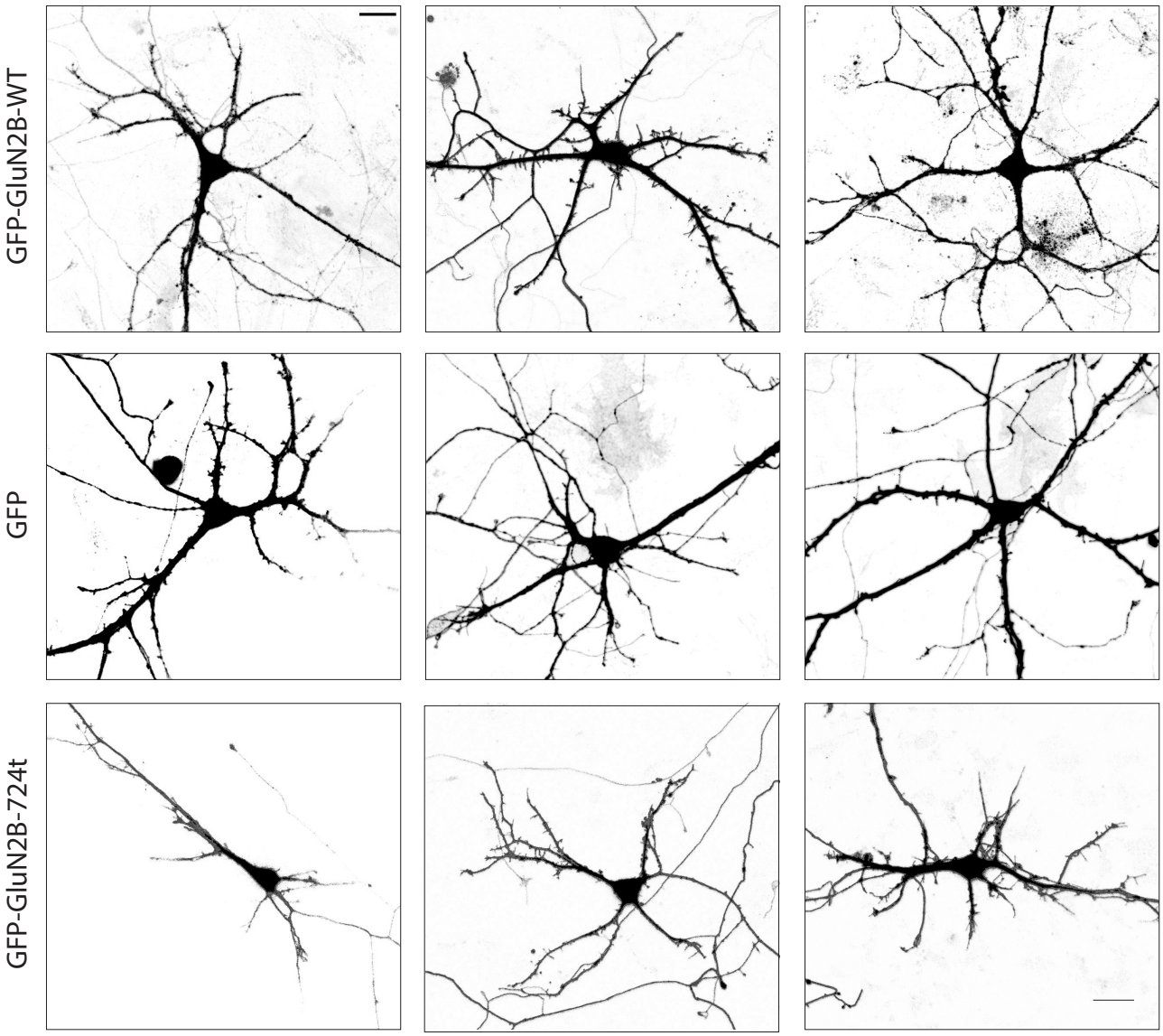

Figure S2. Examples of dendrites of neurons transfected with GFP alone, GFP-GluN2B^{WT} or GFP-GluN2B^{724t}. Each row comprises three examples for neurons transfected with the construct indicated on the left. tdTomato fills are shown to allow visualization of the full extent of the dendritic arbors. Neurons transfected with GFP-GluN2B^{724t} tended to appear underdeveloped or dysmorphic when compared to either GFP-GluN2B^{WT} or GFP-expressing neurons. In contrast, neurons transfected with either GFP or GFP-GluN2B ^{WT} generally appeared well-developed. Scale bars, 20µm