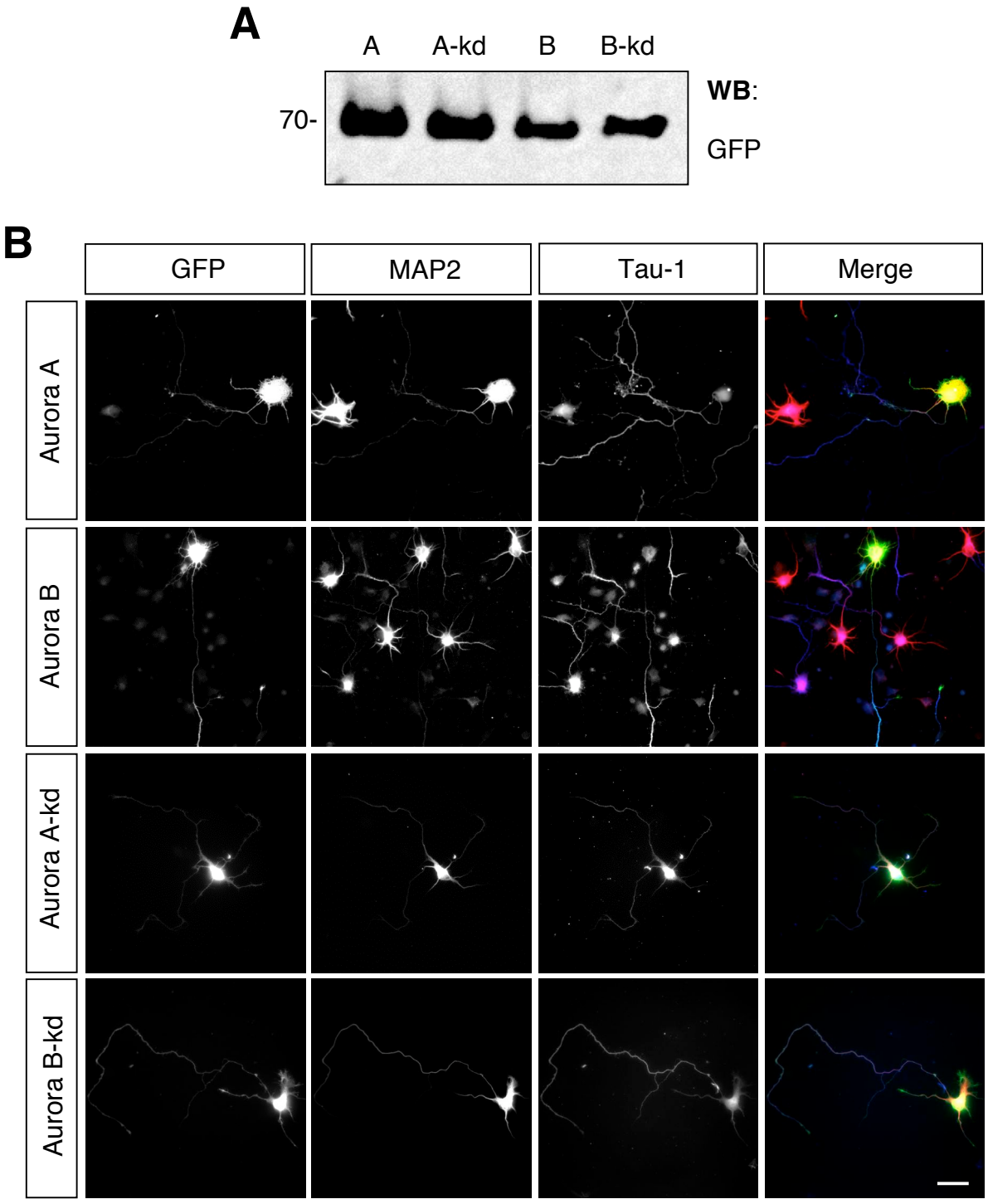
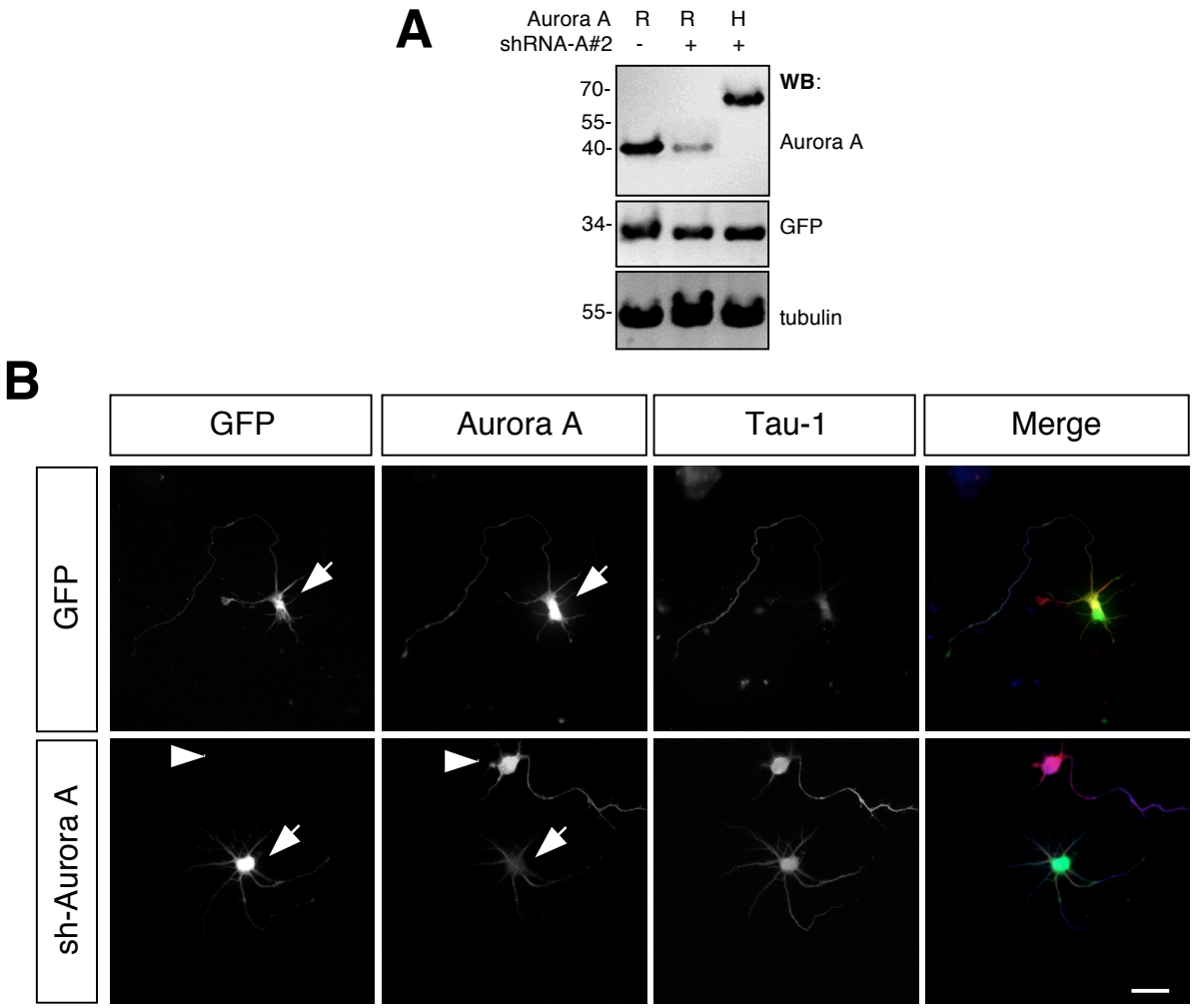
SUPPLEMENTAL FIGURE LEGENDS

FIGURE S1. **Expression of Aurora kinases in neurons.** *A*. HEK 293T cells were transfected with vectors for GFP-Aurora A (A), kinase-dead GFP-Aurora A (A-kd), GFP-Aurora B (B), and kinase-dead GFP-Aurora B (B-kd). Lysates were analyzed by Western blot using an antibody specific for GFP. All constructs were expressed at comparable levels. Numbers indicate molecular weight in kDa. *B*, Hippocampal neurons were transfected at 0 d.i.v. with expression vectors for GFP-Aurora A, kinase-dead (kd) GFP-Aurora A-kd, GFP-Aurora B (B), and GFP-Aurora B-kd. Transfected cells were analyzed at 3 d.i.v. by staining with the Tau-1 antibody (blue) and an anti-MAP2 antibody (red). The GFP fluorescence showed that all constructs were expressed at comparable levels. The scale bar is 40μm.

FIGURE S2. **Suppression of Aurora kinases by RNAi.** *A*. HEK 293T cells were transfected with vectors for GFP, rat Aurora A (R) or human GFP-Aurora A (H) and a vector for shRNA-A#2 directed against rat Aurora A to confirm that human Aurora A is resistant to shRNA-A#2. Lysates were analyzed by Western blot using antibodies specific for Aurora A, GFP (transfection control) and anti-tubulin (loading control). Numbers indicate molecular weight in kDa. *B*, Hippocampal neurons were transfected at 0 d.i.v. with expression vectors for GFP, and an shRNA directed against Aurora A. Transfected cells were analyzed at 3 d.i.v. by staining with the Tau-1 antibody (blue) as axonal marker and an anti-Aurora A antibody (red). The arrow indicates a transfected neuron that does not show staining for Aurora A, the arrowhead an untransfected neuron that expresses Aurora A. The scale bar is 40μm.



Suppl. Figure S1



Suppl. Figure S2