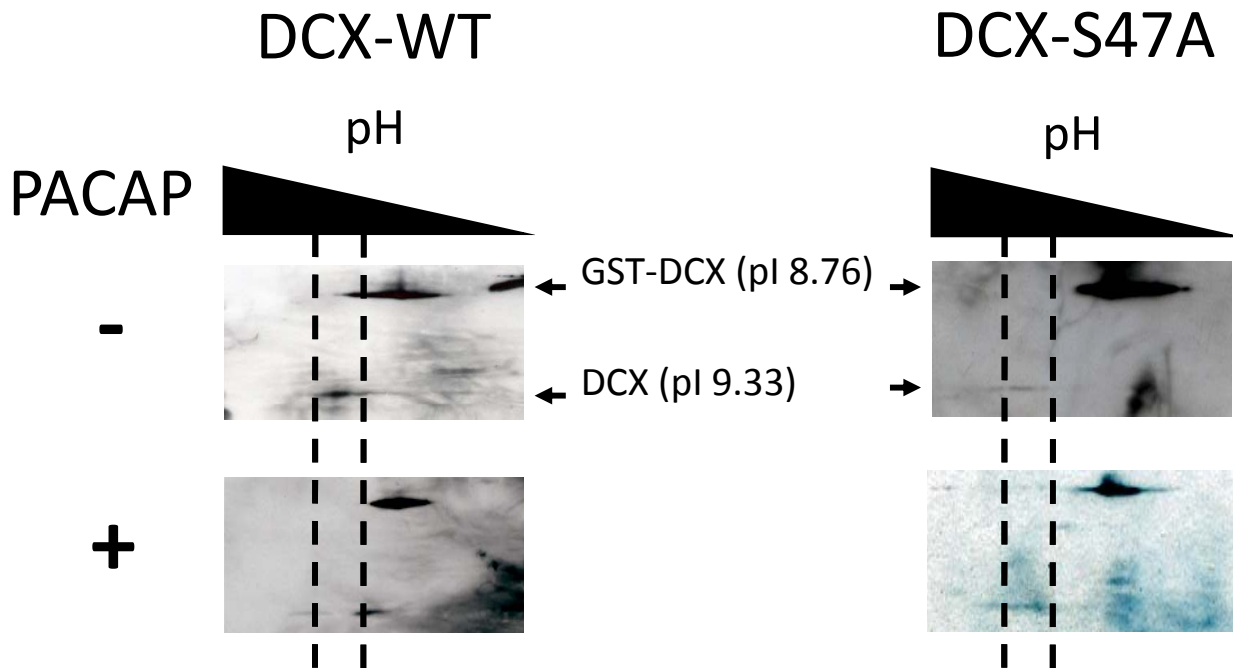


Supplemental Figure 1
PKA inhibitor inhibits radial migration.

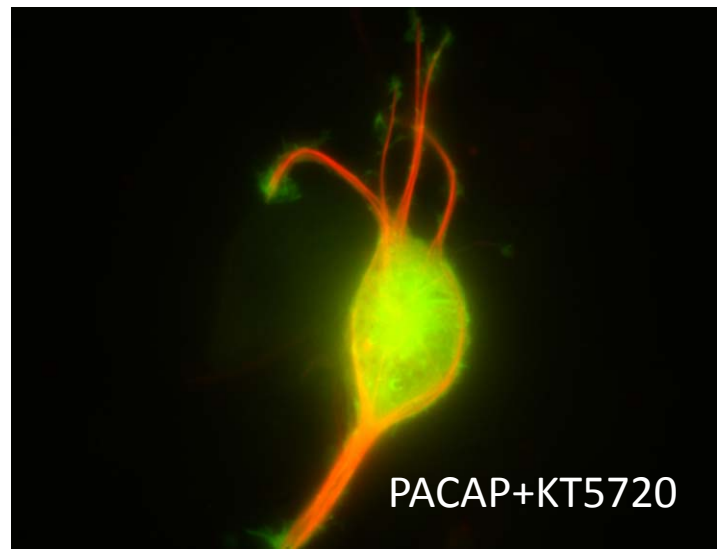
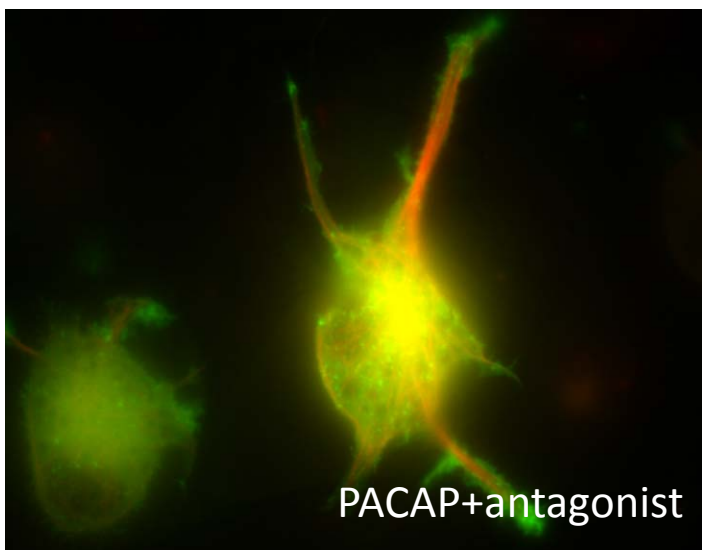
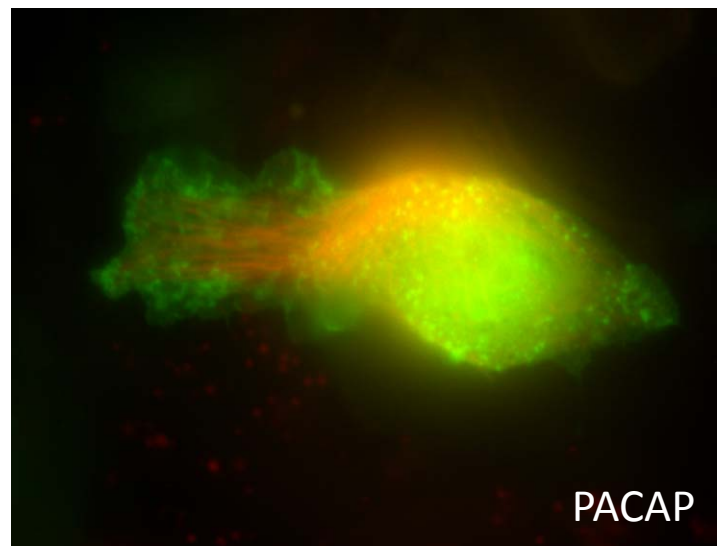
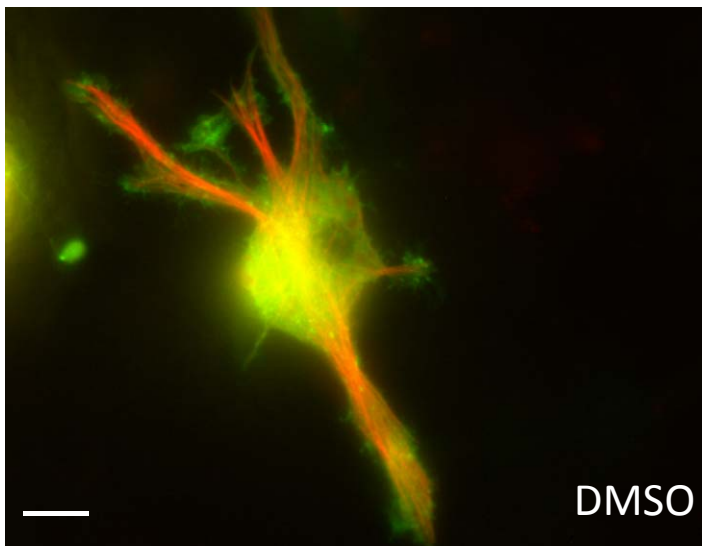
Cells in the ventricular zone (VZ) were infected with adenoviruses harboring GFP. Slices were cultured for 4 days *in vitro* without or with 1 μ M KT5720. Scale bar, 250 μ m.



Supplemental Figure 2

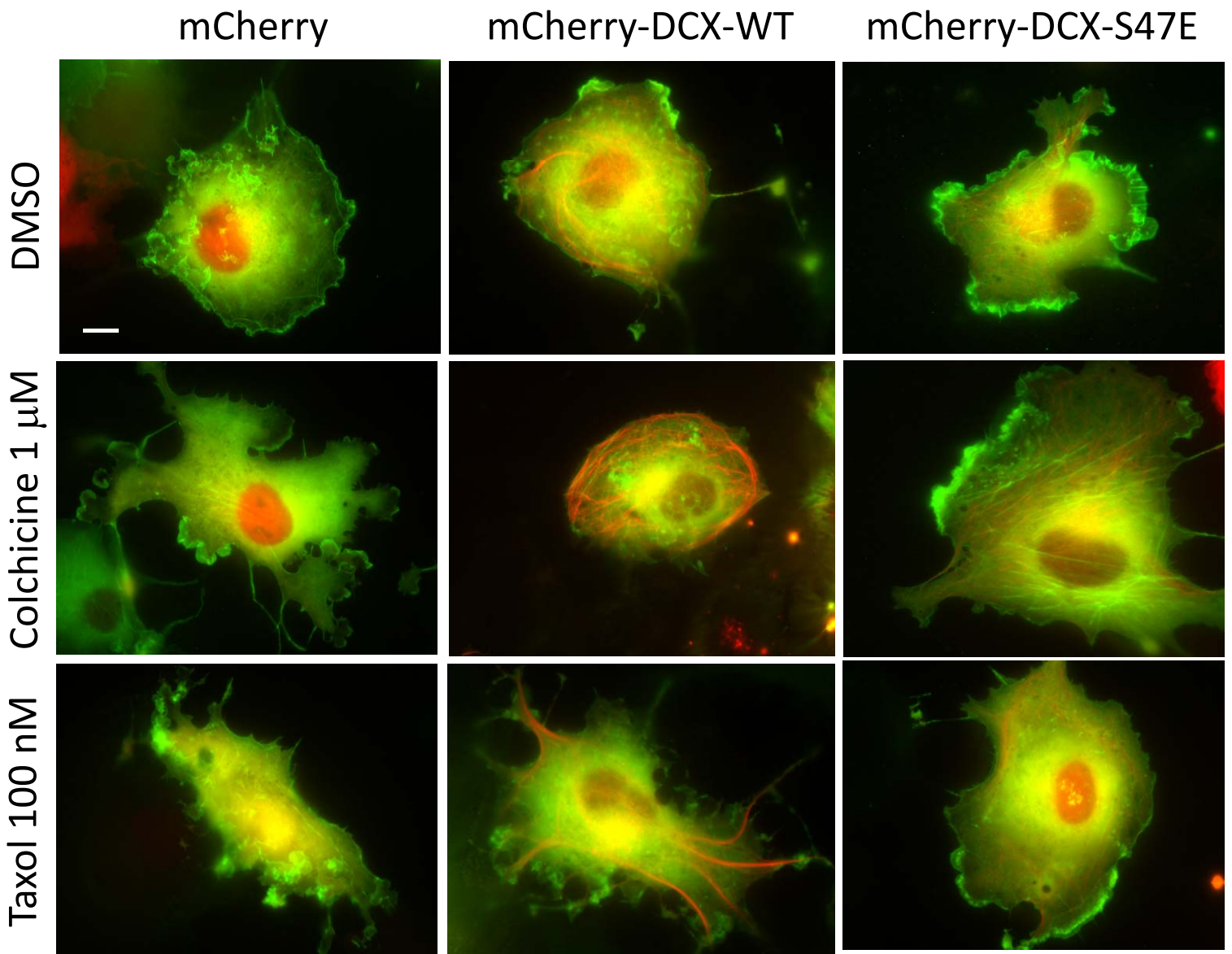
Two-dimensional electrophoresis and immunoblot analysis using anti-DCX antibody of cell lysates from neuronal progenitor cells treated with PACAP.

NPCs were infected with adenoviruses expressing DCX-WT and DCX-S47A. Two days after infection, cells were treated with 10 nM PACAP for 1 h and then lysed. GST-DCX protein was added to cell lysates as an internal control. DCX was separated by 2-dimensional electrophoresis and analyzed by anti-DCX antibody. The pairs of vertical dotted lines indicate the position of DCX in unstimulated cells.



Supplemental Figure 3
PACAP stimulation induces lamellipodia.

NPCs were transfected with EGFP-actin (green) and mCherry-DCX-WT (red). After attachment to a laminin-coated dish, cells were treated with 2.5% DMSO, 1 μ M PACAP antagonist and 10 μ M KT5720 for 30 min, and then stimulated with 10 nM PACAP for 30 min. Scale bar, 10 μ m.



Supplemental Figure 4

Overexpression of DCX-S47E induces lamellipodia which are unaffected by microtubule inhibitors.

COS7 cells were transfected with EGFP-actin and mCherry, mCherry-DCX-WT and mCherry-DCX-S47E. Forty-eight hours after transfection, cells were treated with 1% DMSO, 1 μ M colchicine and 100 nM taxol for 30 min. Scale bar, 10 μ m.