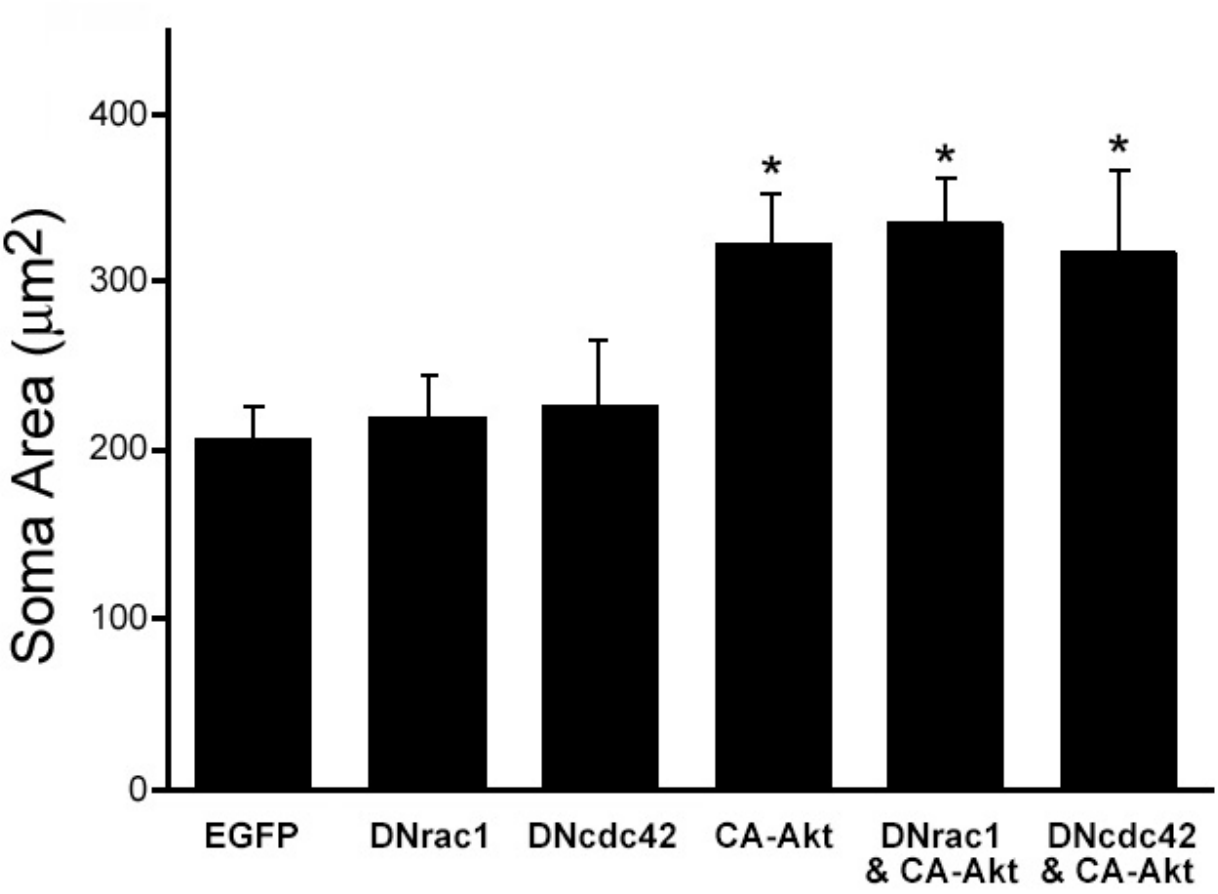
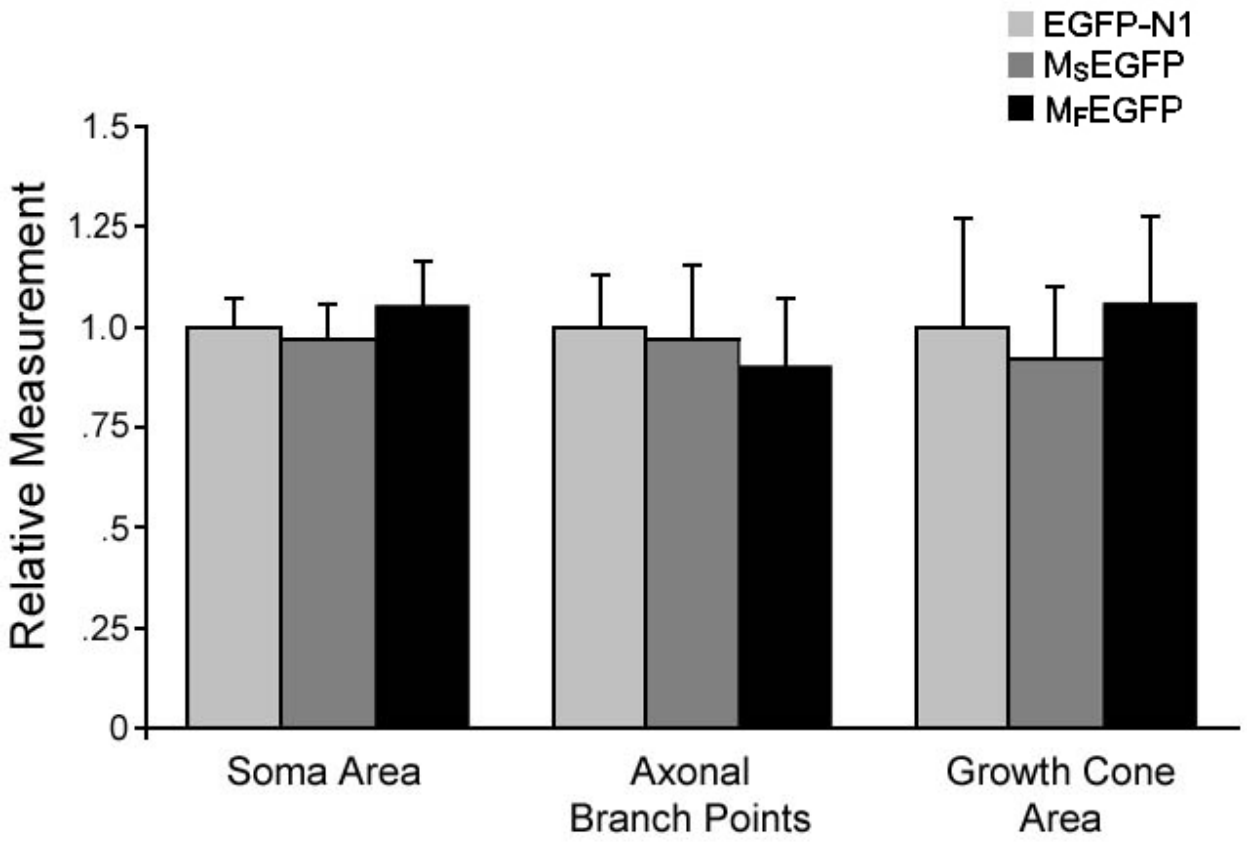
Supporting Information

Grider MH[1], Park D, Spencer DM, Shine HD, Lipid raft-targeted Akt promotes axonal branching and growth cone expansion via mTOR and Rac1, respectively. J Neurosci Res. 2009 Nov 1;87(14):3033-42. doi: 10.1002/jnr.22140.

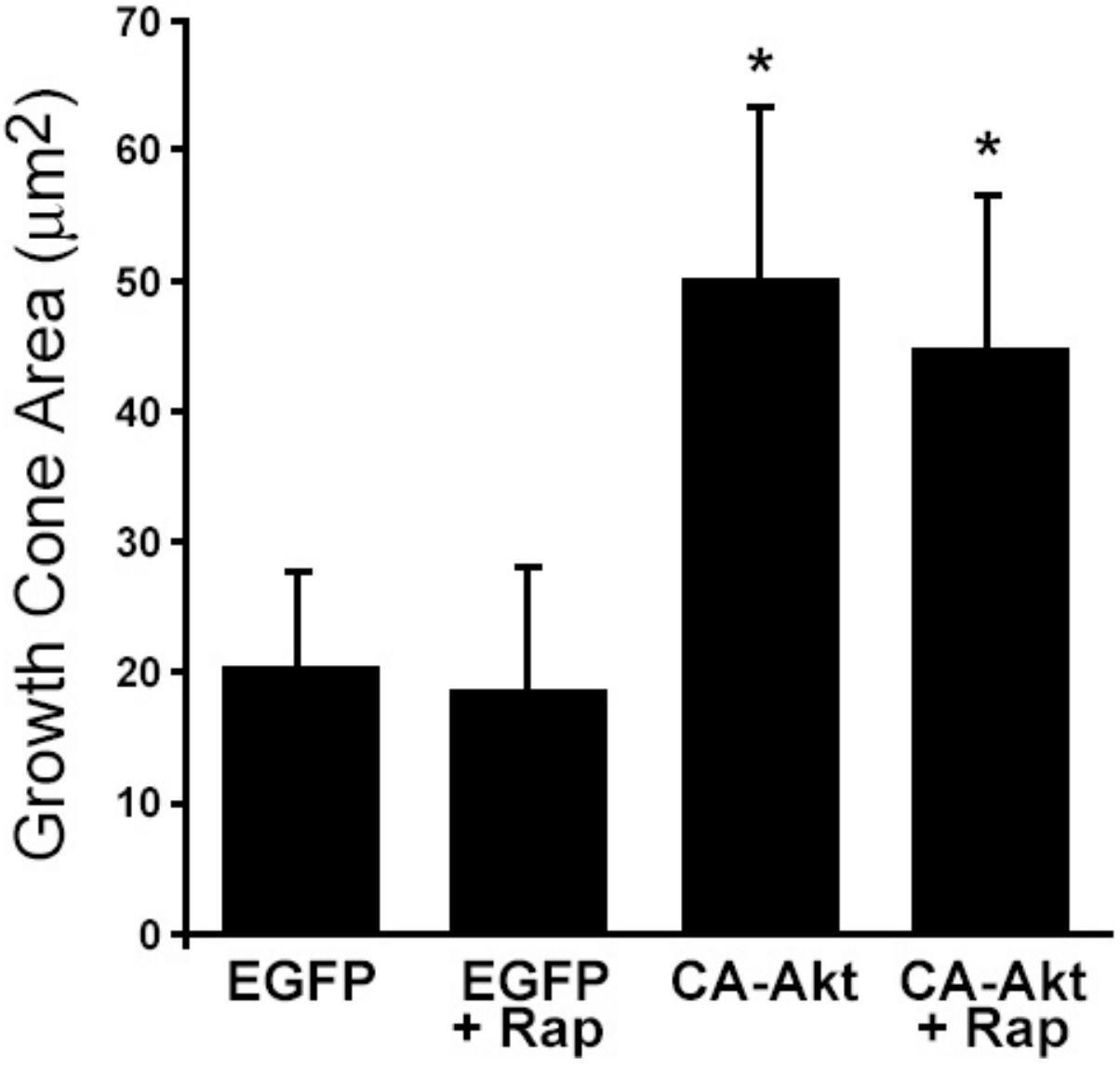
Supporting Information Figure 1. Expression of myristoylated forms of non-biologically active proteins does not influence neuronal morphology. Neurons that expressed myristoylated forms of EGFP (Ms.EGFP or Mf.EGFP) were not different from neurons that expressed cytosolic EGFP-N1 in soma area, the number of axonal branch points, or growth cone area.



Supporting Information Figure 2. Rapamycin does not influence growth cone expansion. Compared to neurons that expressed the control protein EGFP, neurons that expressed CA-Akt had significantly larger growth cones in the absence (p=0.038) or presence (p=.046) of rapamycin (100nM). In neurons that expressed CA-Akt, the growth cone area was not significantly different between neurons incubated in the presence or absence of rapamycin (p=.63).



Supporting Information Figure 3. Decreased Rac1 or Cdc42 activity does not influence soma area. The size of neuronal cell bodies was larger in neurons that expressed MFΔAkt, compared to neurons that expressed EGFP. Co-expression of DNrac1 or DNcdc42 did not affect soma area in neurons that expressed either EGFP or CA-Akt.



Supporting Information Figure 4. Decreased Rac1 or Cdc42 activity does not influence axonal branching. Expression of CA-Akt in DRG neurons increased axonal branching compared to expression of EGFP. Co-expression of DNrac1 or DNcdc42 did not affect axonal branching in neurons that expressed either EGFP or CA-Akt. Neurons transduced with MSΔAkt or MFΔAkt were immunoreactive for an antibody directed against HA (αHA) within 6 hours following transduction, and were strongly EGFP-positive within 24 hours. The small gold bead (arrowhead) from biolistic transduction was often observed within the soma.