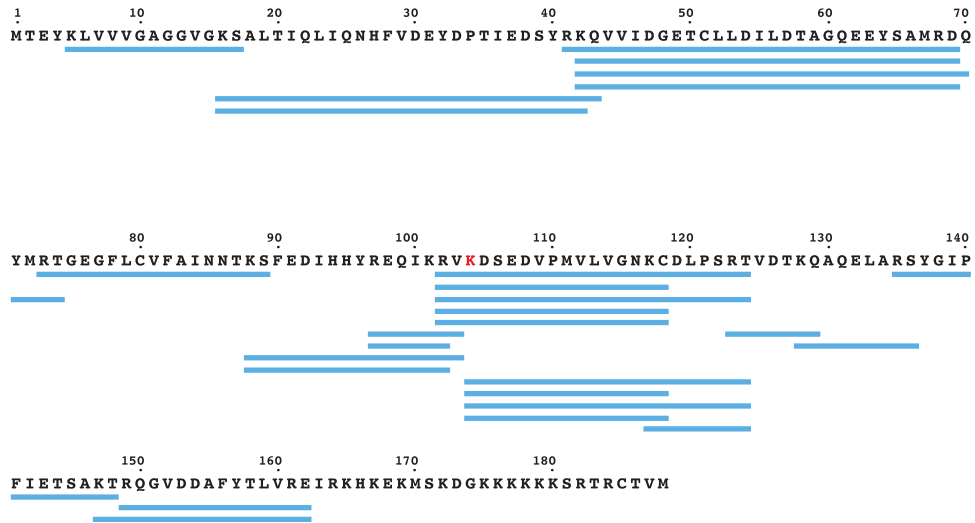
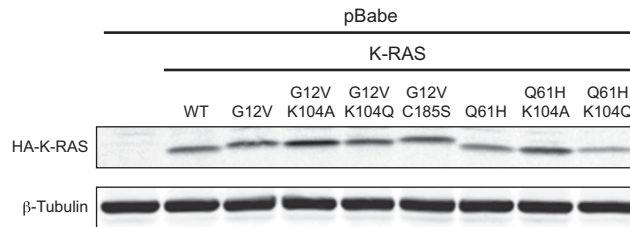


# Supporting Information

Yang et al. 10.1073/pnas.1201487109

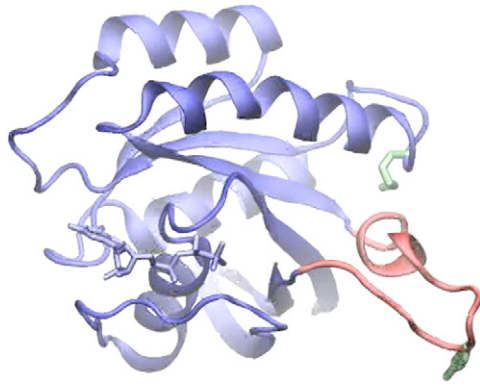


**Fig. S1.** Mass spectrometry analysis of K-RAS. HA-tagged G12V K-RAS4B was immunoprecipitated from 293T cells and subjected to LC/MS/MS analysis. Peptides that were identified are highlighted in blue below the primary sequence of K-RAS4B protein.



**Fig. S2.** Expression of ectopic K-RAS4B in NIH3t3 cells. HA-tagged forms of K-RAS4B were stably expressed in NIH3t3 cells from the pBabe retrovirus. Expression of the ectopic K-RAS4B was detected via Western blotting with anti-HA antibody.





**Movie S2.** Structural simulation of K104Ac RAS. Molecular dynamics simulation of RAS that is acetylated on lysine 104. The  $\alpha 2$  helix of the Switch II domain (highlighted in pink) is highly unstable.

[Movie S2](#)